DOCUMENT RESUME

ED 436 332 RC 022 179

TITLE	The Link, 1995-1998.
INSTITUTION	Appalachia Educational Lab., Charleston, WV.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	1998-00-00
NOTE	333p.
CONTRACT	RP91002002; RJ96006001
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	The Link; v14-17 1995-1998
EDRS PRICE	MF01/PC14 Plus Postage.
DESCRIPTORS	Educational Change; Educational Environment; *Educational Practices; Educational Research; Educational Strategies; Elementary Secondary Education; Research and Development; *Rural Education; School Community Relationship

ABSTRACT

This document contains the 16 issues of the newsletter "The Link" published during 1995-98. The Link disseminates resources, recent educational research findings, and other information of interest to practitioners in the four states served by Appalachia Educational Laboratory (AEL): Virginia, West Virginia, Kentucky, and Tennessee. Feature articles cover such topics as inclusion practices, legislation, and resources; instructional strategies for attention deficit disorders; school-community connections; implementation of the Kentucky Education Reform Act (KERA) in rural Kentucky districts; preventing antisocial behavior in disabled and at-risk students; encouraging girls in science, mathematics, and technology; curriculum integration; respectful learning environments; parent involvement; rural schools in the global economy; new roles for educational service agencies in rural education reform; school programs to promote safety and civility; nurturing student writers; the Internet in the classroom; student participation in school improvement; and interdisciplinary teamed instruction. Supplements include issues of "Dialogue: News from AEL's Colleges & Schools Program," "School Governance & Administration Exchange: An AEL Forum for Local School Administrators," "Focus on Instruction," and "R & D Watch," as well as catalogs of available resources. (SV)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 436 332

THE LINK, 1995-1998

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

M. SLACK

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

RC 022117

BEST COPY AVAILABLE

The LINK

AEL—linking the education communities of research and practice

Volume 14, No. 1 • Spring-Summer 1995

Special Issue

INCLUSION: A Responsible Approach

by Harley A. Tomey III, Virginia Department of Education

AEL
more than
25 YEARS
OF SERVICE
To Educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Why the controversy over inclusion? In part, the issue comes from the disagreement among professionals, parents, and others about the meaning of inclusion. Instead of debating this issue, the focus should be on full implementation of the least restrictive environment regulation. The goal of education should be to provide students, including those with learning disabilities,* with the opportunity and necessary supports that will allow them to become independent, productive, and socially involved citizens who are committed to life-long learning. With this goal, the full implementation of the least restrictive environment for many students with learning disabilities will be within the general education classroom with appropriate supplementary aids and services: i.e., full inclusion.

For others, however, the least restrictive environment may mean part-time or full-time education in special classes or special schools. We need to remember that there are students with learning disabilities who, due to the nature and severity of their disability, will require intense systematic instruction that may not be available or is not common in the general education classroom. Meeting the unique educational needs of these students may require the use of part-time or full-time special classes. Thus, meeting the individual needs of the student must remain the goal of any discussion of inclusion. With this in mind, there are several issues that must be addressed to make the general education classroom an environment that will enable students with learning disabilities to achieve their goals.

Shared Vision

First, a shared vision is essential. The basis for any change is found in an organization's values and beliefs, as articulated by its philosophy and mission statements. A school's philosophy is a statement of general principles that underlie the education of students, including those with learning disabilities, and the school's mission statement sets forth the overall goal(s) for the delivery of services. The development of these statements must involve the entire school community, which includes teachers, support personnel, administrators, parents, students, and the community-at-large. For inclusion to be successful and meet the educational needs of students, including those with learning disabilities, this community needs to share a common vision and beliefs. In many cases, this may necessitate a shift in attitudes about students with learning disabilities, how they are taught, and what can be expected of them. School leaders are critical in facilitating this change in attitudes and must play an active, positive, and supportive role for change to occur. However, one must remember that change, regardless how large or small, is a process, not an event, and takes time.

Staff Roles and Responsibilities

Once there is consensus relative to the school's vision, beliefs and goals, the staff must determine the role and responsibilities of individual teachers, support personnel, and administrators. All those involved with the education of students, including those with learning disabilities, need to develop a

(continued on page 4)

---

*While this article uses the term learning disabilities, its message also applies to all students with special needs, including students identified as behavior disordered, mentally retarded, and sensory impaired. Harley A. Tomey III, is education specialist in learning disabilities at the Virginia Department of Education in Richmond. He is a vice president of The Orton Dyslexia Society and chairs its Branch Development Committee. This article first appeared in *Perspectives*, Special Issue, The Orton Dyslexia Society, Volume 20, No. 4, Fall 1994.

RC020117

BEST COPY AVAILABLE

To our readers:

During nearly 14 years of publishing *The Link*, we've tried to provide you with state-of-the-art education information—the latest research, hot topics, and controversial issues. Our main goal, however, is to give you information that will be useful to you in your service to the education community. Also, we try to offer something for everyone, because we serve many audiences—teachers, administrators, policymakers, higher educators, parents, and community leaders, among others. To better serve you, we routinely ask for your opinion about *The Link* through reader surveys. Our most recent survey asked you to suggest topics for a theme issue. You had some good ideas. We shared them with other AEL staff and asked them to help select the topic for this theme issue. After much consideration and discussion, we settled on **inclusion**.

This was a tough one. Every piece of inclusion literature seemed to offer something important. We had to make some difficult decisions as to what would and would not be included.

Obviously absent from this issue is a discussion of the problems surrounding inclusion, and we are well aware that they exist. We know that special-needs students are sometimes placed in regular classrooms where teachers lack proper training and support services (e.g., appropriate staff development, teachers' aides, necessary resources, etc.). The results can be disastrous. But we didn't think a discussion of cases where inclusion is being poorly implemented would be a good use of our limited space. We thought information about responsible, successful inclusion efforts might be more valuable.

Also, you won't see lengthy philosophical discussions about the rightness or wrongness of inclusion. The courts are sending a strong message that inclusion must be done and, therefore, we believe such debates are of little value. However, we are aware that staunch advocates as well as opponents exist. We hear about teachers trained to work in regular classrooms—they never intended to work with special-needs children—who feel ill-prepared and often uncomfortable teaching such a diverse mixture of students. On the other hand, some teachers are finding tremendous fulfillment in working with all types of students—seeing them learn from each other and experience the social benefits of just being in class together.

We know that inclusion is an emotionally charged issue for parents as well. Some fight vehemently to have their special-needs children placed in regular classrooms. Others are fighting just as hard to keep their children in separate, special education classrooms or schools, fearing that these services may some day disappear. Parents of regular education students have concerns too. Some worry about the interruptions and disturbances that can occur when special-needs children are placed in regular classrooms. They wonder how much of the teacher's time and attention is being diverted from their children. Other parents are pleased with the experiences their children are getting as they are educated alongside special-needs students.

Administrators' responses to inclusion run the gamut as much as those of teachers and parents. Some resist any form of inclusion, while others mandate it, but without the appropriate support. Other administrators encourage teachers to try proven inclusive practices or create their own, and provide them the planning time and other necessary

In this issue:

RESEARCH NOTES

Research Base Limited on Effects of Inclusion, p. 5
Research Supports Inclusion for Physically Disabled—Vocational Ed Prevents Dropping Out, p. 6
National Survey Identifies Inclusive Education Practices, p. 7
West Virginia Study Looks at Inclusion in Other States, p. 9

LEGALLY SPEAKING

What Does Federal Law Require? p. 9
Defining the Least Restrictive Environment, p. 14

NOTEWORTHY

Sense of Community, Co-teaching Among Traits of Successful Inclusive Schools, p. 16
Forum Suggests Ways, by Role Group, to Create More Inclusive Schools, p. 19
Special-Needs Students, p. 22
Policies and Position Statements, p. 23

AROUND THE REGION

Number of Children Age 6-21 Served Under IDEA, Part B by Disability, p. 25
Placement of Children Receiving Special Education Under IDEA, Ages 6-21 , p. 26
Number of Special Education Teachers Employed and Needed, by State, p. 26

INSIDE AEL

Results of Inclusion Survey to be Produced on Audiotape, p. 27
Two AEL Projects Aim to Identify Effective Inclusion Strategies, p. 27

aids. And we note that, as schools implement inclusion, administrators must deal with the frustrations of both teachers and parents.

A great deal has been said about inclusion. So, in deciding which material to keep and which to eliminate, we went back to our old rule of thumb. We've tried to provide information that is useful, serves the interests of our various audiences, and fits within the standard sections of *The Link*—Research Notes, Noteworthy, Around the Region, and Inside AEL.

Once we had what we judged to be a final draft, we sought the advice of several professionals outside AEL: a special education expert in a state department of education, a mother of a special-needs child who also holds a degree in special education, and a professor of special education who conducts training on a national level and has published widely on the topic of special education.

We hope you find this issue interesting and useful, and we're always interested in your comments and suggestions. Please feel free to write or call us.

—Carolyn Luzader, Editor

Glossary

ADA—Americans with Disabilities Act, which prohibits discrimination against individuals with disabilities at work, at school, and in public accommodations, and is not limited to those organizations and programs that receive federal funds (like Section 504).

Continuum of program options [services]—a full range of education and related services to accommodate an individual student's characteristics, needs, abilities, and interests in accord with the principle of least restrictive environment.

Continuum of [alternative] placements—the range of levels of service that must be available to students with disabilities (see page 10).

Cooperative or team teaching practices—regular and special education classroom teachers work together to determine appropriate education methods, materials, professional development, and supportive services.

Dumping—the practice of placing special-needs students in regular education classrooms without the appropriate supplementary aids and support services.

General or regular education—general curriculum classes led by regular (as opposed to special) education teachers.

Inclusion—the commitment to educate children with disabilities, to the maximum extent appropriate, in the schools and classrooms they would otherwise attend. It involves bringing the support services to the child (rather than moving the child to the services).

IDEA—Individuals with Disabilities Education Act (see page 9).

IEP—Individualized Education Program (or Plan)—a detailed, written education plan—based on the specific needs of an individual child—describing annual education goals and services needed to reach those goals, developed by a team that includes the child's teachers, specialists in the area of disability, and parents.

Integrated environment—classrooms that include both special and general education students.

LRE—least restrictive environment regulation (PL 94-142, as amended by PL 99-457 and PL 101-476), which provides that ". . . to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, [must be] educated with children who are not handicapped . . . ." (see page 10).

Mainstreaming—although not found in law, the term is commonly used to refer to the practice of placing special education students in general education classes for a part of the school day, usually in nonacademic settings.

Section 504 of the Rehabilitation Act of 1973—prohibits programs that receive federal dollars from discriminating against individuals with disabilities. It requires public schools to make accommodations for eligible handicapped children, whether or not they qualify for special education services under IDEA. A **504 plan**—similar to an IEP—spells out the modifications to be made for an eligible handicapped child.

Special education—specially designed instruction, at no cost to the parent, to meet the unique needs of a child with disabilities.

Supplementary aids and services—aids and services provided to help disabled children benefit from special education. They are unique for each child and should be specified in the child's IEP. They can include classroom aides; consultation and training for the teacher; electronic aids and services such as computers, speech synthesizers, etc.; and medical monitoring equipment.

(continued from page one)

common set of expectations about each other. Therefore, in an inclusive environment, it is necessary to identify for each student with a learning disability:

- who will provide the services needed: i.e., identifying the role each staff member plays in the provision of services;
- how will the services be provided: i.e., defining the needed teaching arrangement(s) and including any modification and adaptations needed by the student;
- when will the services be provided: i.e., the frequency and duration of the special education and related services; and
- where will the services be provided.

Staff Development

Another critical issue is staff development. The lack of preparation of school staff is a common obstacle to successful inclusion. Staff development must be ongoing and well planned. This training must address the needs of the school community and incorporate effective interventions that will be supportive for students, including those with learning disabilities. Thus, staff development may address skills in effective communications, team decisionmaking, team interaction, and cooperative learning. Other areas of staff development may include study-skills instruction, social-skills instruction, systematic multisensory instruction, direct instruction, understanding learning differences, and the use of collaboration and cooperation. This training should lead to supportive networks for both students and staff. For the student, this may include cooperative learning, buddy systems, and peer tutoring. For the school staff, it may include collaboration, team teaching, co-teaching, child study committees, and other cooperative arrangements.

Informed Parents

As with any change involving students, parents are key stakeholders in the process. They must be informed, considered as equal partners, and involved in the planning process from the beginning. Parents may have some of the following concerns regarding inclusion:

- Will my child learn as much and as effectively?
- What level of involvement will I have in the decision regarding my child's educational needs and placement?
- Will school staff be provided with training necessary to address the educational needs of my child?
- Will flexibility for my child be assured?
- Who will make sure that the general and special education staffs communicate and work together so that my child's educational needs are met?
- Can I be assured that support systems, including needed related services, will be available to meet my child's specific needs?

Flexibility

Finally, flexibility in the learning environment is vital. While inclusion is a goal for all students with learning disabilities, placement decisions must be based on the specific needs of the student, as identified in the student's individualized education program (IEP). Thus, a continuum of alternative placement options must be available to each student. This flexibility allows parents, school staff, and the student to make decisions based on educational needs. It is reckless to believe that one environment, either the general education classroom or the special education classroom, will always adequately meet the educational needs of all students with learning disabilities. Placement decisions must be carefully made, and if a placement does not work as well as anticipated, changes should be made quickly. The student should not be made to endure an inappropriate placement. The system must be flexible to allow for responsible inclusion, which incorporates the availability of a continuum of alternative placement options.

Conclusion

In conclusion, while inclusive education in the general education classroom is the ultimate goal for all students with learning disabilities, it must be accomplished in a reasonable manner. Forcing inclusion on an educational community will only create barriers. However, inclusion can be successful when the educational community shares goals and decisionmaking, staff roles and responsibilities are defined, staff is well trained, parents are informed, and the educational environment is flexible. It is imperative that the IEP for the student with learning disabilities focus on meeting the student's unique needs.

References

Baker, J., & Zigmond, N. (1990). Are regular education classes equipped to accommodate students with learning disabilities? *Exceptional Children, 54*, 515-526.

Cernosia, A. (1994, July). *Full implementation of LRE, an overview of the law: From exclusion to full inclusion.* Paper presented to the special education staff of the Virginia Department of Education, Richmond, VA.

Fuchs, D., Deshler, D., & Zigmond, N. (1994, March). *How expendable is general education? How expendable is special education?* Paper presented at the 31st annual international conference of the Learning Disabilities Association of America, Washington, D.C.

Fuchs, D., & Fuchs, L. S. (1994). Inclusive schools movement and the radicalization of special education reform. *Exceptional Children, 60,* 294-309.

Mather, N., & Roberts, R. (1994). Learning disabilities: A field in danger of extinction? *Learning Disabilities: Research and Practice, 9,* 49-58.

Mercer, C. D., & Lane, H. (1994). Principles of responsible inclusion. *LDA Newsbriefs, 29*(4), 1.

National Center for Learning Disabilities. (1994). An NCLD statement on inclusion. *Their World,* 101-104.

National Joint Committee on Learning Disabilities. (1994). *Collective perspectives on issues affecting learning disabilities: Position papers and statements.* Austin, TX: Pro-Ed.

The Orton Dyslexia Society (1994, May). Position statement on inclusion.

Virginia Department of Education. (1993). *Accept: Learning together: Integrating students with disabilities.* Richmond, VA: Author.

Research Base Limited on Effects of Inclusion

by Thomas P. Lombardi, West Virginia University

Although the literature abounds with mission statements, philosophies, theories, principles, opinions, perceptions, and guidelines, few studies exist on the efficacy of inclusion for the broad range of students who are eligible for special education. Most information is in the form of case studies. Following are some noteworthy studies:

- Halvorsen and Sailor (1990) reviewed 261 studies that compared special-needs students in integrated placements with their peers in segregated placements. They concluded that the students in the integrated programs more often reduced inappropriate behaviors, increased communication skills, exhibited greater independence, and engendered higher parental expectations.
- The Learning Together Project (Corbin, 1991), conducted in east central Minnesota, targeted students in five elementary schools for full inclusion in general education classrooms. Previously, these students had been educated in segregated classrooms. As a result of the new placement, parents reported greater growth in both academic and social learning. Teachers found that the regular education students maintained their academic performance, were understanding and accepting of the disabled students, and became role models for the students with disabilities.
- The Ravenswood (WV) Project (Lombardi, Nuzzo, Kennedy, and Foshay, 1994) assessed the perceptions of 36 teachers, 96 parents, and 232 students regarding an integrated high school inclusion program. All groups were supportive of the program. Positive results included a decrease in dropout rates for students with disabilities, fewer classroom disturbances, and reasonable academic gains. Of the 36 students who had been in resource rooms and special classes, all preferred the regular classroom placement over their previous placement.
- A related study of the cost-effectiveness of inclusion was conducted in Madison, Wisconsin. Piuma (1989) found that, over a 15-year period, the employment rate for high school graduates with special needs who had been in segregated programs was 53 percent. But for special-needs graduates from integrated programs, the employment rate was 73 percent. The cost of educating students in segregated programs far exceeded the cost of educating them in integrated programs. These findings are similar to those of a study by Affleck, Madge, Adams, and Lowenbraun (1988), which showed that the integrated classroom program for students with special needs was more cost-effective than the resource program, even though achievement in reading, math, and language remained basically the same in the two service delivery systems.

References

Affleck, J.Q., Madge, S., Adams, A., and Lowenbraun, S. "Integrated classrooms versus resource model: Academic viability and effectiveness." *Exceptional Children 54* (January 1988): 339-48.

Corbin, N. "The impact of learning together." *What's*

Thomas P. Lombardi is professor of special education at West Virginia University. He is author of Phi Delta Kappa's Fastback 373, ***Responsible Inclusion of Students with Disabilities***, from which this article was taken. A certified Strategy Intervention Model trainer, Lombardi provides training, workshops, and consultation for schools and industry nationwide.

Working. Minnesota Department of Education (Spring/Summer 1991).

Halvorsen, A.T., and Sailor, W. "Integration of students with severe and profound disabilities: A review of the research." In *Issues and Research in Special Education: Vol. 1*, edited by R. Gaylord-Ross. New York: Teachers College Press, 1990.

Lombardi, T.P., Nuzzo, D.L., Kennedy, K.D., and Foshay, J. "Perceptions of parents, teachers and students regarding an integrated education inclusion program." *High School Journal* 77 (April/May 1994), 315-21.

Piuma, M.F. (1989). *Benefits and cost of integrating students with severe disabilities into regular school programs: A study summary of money well spent.* San Francisco: San Francisco State University Department of Special Education.

Research Supports Inclusion for Physically Disabled—

Vocational Ed Prevents Dropping Out

Though the state of research on the effects of special education and inclusion remains muddled because of selection bias, problems of measurement, and inconsistencies in classification criteria among school districts, new findings from the *National Longitudinal Transition Study of Special Education Students* (NLTS) lend some support to inclusion advocates. The most recent phase of the study, which tracked the postschool progress of about 8,000 young people with disabilities, analyzed the effects of their secondary school experiences on their later success in continuing education, employment, independent living, and ability to participate fully in community life and activities outside the home.

Students with ***physical disabilities*** were the biggest winners. Those who spent ***all*** of their class time in regular education were 43 percent more likely to be competitively employed after graduation than their peers who spent only ***half*** their class time in regular education. They were also 41 percent more likely to be full participants in community life, and showed smaller advantages in every other category as well. Students with ***sensory disabilities***, such as impaired hearing or vision, also showed small positive differences.

For those with mild [learning] disabilities—the largest group of students—and those with severe impairments, spending all of their school time in regular education classes produced no advantage. "This difference in impacts," the researchers concluded, "supports the hypothesis that regular education benefits youth cognitively equipped to absorb regular high school coursework." There is no evidence that full-time participation in regular education classes had significant negative effects on students with disabilities.

These results are far from conclusive, however, even for the students with physical disabilities who appear to have benefited most from regular education—again because of selection bias and other problems with the research design. "One should not interpret these relationships as implying that regular education necessarily caused improvements in outcomes," the researchers warned. "Rather, it is possible that unmeasured competencies of youth themselves confounded these relationships." In other words, it is possible that, because of the imprecision of skills scales and other measures, the students who were fully integrated were actually more competent to begin with than the segregated students with whom they were compared.

The most unambiguous finding of the NLTS is the importance of vocational education. More than two-thirds of emotionally disturbed youth who dropped out of school were in jail within three years, the study found. But vocational education kept such students in school. Youth with mild disabilities [who took vocational education] were 36 to 40 percent more likely to be employed after graduation and earned significantly more money than peers who did not take vocational courses. Such coursework also improved the likelihood of full community participation after graduation, especially for those with mild disabilities.

For further information: M. Wagner, J. Blackorby, R. Cameto, and L. Newman. *What Makes a Difference? Influences on Postschool Outcomes of Youth with Disabilities.* SRI International, 333 Ravenswood Ave., Menlo Park, CA 94025-3493; 415/326-6200; 1993.

(Reprinted with permission from *The Harvard Education Letter*, Vol. X, No. 4, July/August 1994, p. 3. Copyright ©1994 by the President and Fellows of Harvard College. All rights reserved.)

National Survey Identifies Inclusive Education Practices

The National Center on Educational Restructuring and Inclusion (NCERI), The Graduate School and University Center, The City University of New York, has undertaken a national survey to identify inclusive education programs. Chief state school officers in each state were contacted and asked to identify local districts where inclusion activities were taking place, including information about policy, funding, and evaluation. Districts identified were then contacted and asked for information concerning their program, including the sources of its initiation, the number and handicapping conditions of the students involved, the nature of the inclusion program, changes in classroom practices and curriculum, consequences for staffing and school organization, parental involvement, evaluation activities undertaken, and materials developed. The report identifies factors necessary for inclusion to succeed, as well as teaching models and classroom practices that support inclusion.

Factors Necessary for Restructuring and Inclusion

Based upon the National Center's survey and review of the research, seven factors are necessary for inclusion to succeed:

1. **Visionary leadership**. An Indiana superintendent, commenting about what is necessary for inclusion to succeed, said it only took two things: "leadership and money." As to leadership, three elements are critical: (1) a positive view about the value of education to students with disabilities; (2) an optimistic view of the capacity of teachers and schools to change and to accommodate the needs of all students; and (3) confidence that practices evolve, and that everyone benefits from inclusion.

2. **Collaboration**. Reports from school districts show that inclusive education presumes that no one teacher can—or ought to—be expected to have all the expertise required to meet the educational needs of all the students in the classroom. Rather, individual teachers must have available to them the support systems that provide collaborative assistance and enable them to engage in cooperative problem solving. Planning teams, scheduling of time for teachers to work together, recognition of teachers as problem solvers, conceptualizing teachers as frontline researchers—all of these are tools necessary for collaboration.

3. **Refocused use of assessment**. Traditionally, student assessments have been used as screening devices—to determine who gets into which slot. In special education, a myriad of studies point to the inadequacy of this screening. Inclusive education schools and districts report moving toward more "authentic assessment" designs, including the use of alternative measures of performance, attention to portfolios of students' work and performances, and generally working to refocus assessment. They also report that assessment is used not just as a standardized measure but one that builds a greater understanding of individual student needs. It is not used as a marker of teacher success or to measure one district's or building's performance against that of another.

4. **Support for staff and students.** Two factors are reported for successful inclusive programs: systematic staff development and flexible planning time for special education and general education teachers to meet and work together. A key factor in the planning process with teachers is the involvement of parents and, when possible, the student in the planning process. From the vantage point of students, supports for inclusion often mean supplementary aids and support services. Districts report that these include: assignment of school aides, full- or part-time, short- or long-term; curriculum adaptation; provision of needed therapy services, integrated into the regular school program; peer support; "buddy systems" or "circles of friends"; and effective use of computer-aided technology and other assistive devices.

5. **Funding**. The federally funded Center for Special Education Finance confirms earlier research

Worth Quoting

"One of the greatest myths is that full inclusion obligates a public school district to educate ***every*** student with a disability in a regular classroom for the ***entire*** school day. Full inclusion doesn't mean that. It means students with disabilities might be placed in a regular classroom on a full-time basis, but, if appropriate and necessary, they still can be 'pulled out' for special instruction or related services . . . . The determination must be made on a case-by-case basis for each child. And it should begin with the idea of placement in a regular classroom and only then move to the more restricted setting—not vice versa." (Jean B. Arnold and Harold W. Dodge, "Room for All," *The American School Board Journal*, October 1994) that the particular funding formula used by a state has consequence for student placement and inclusion. In most states, the funding formula used to support special education encourages separate programs. Rather than supporting placement patterns, school districts reported wanting funding to follow students. In Vermont, for example, the changes in the funding formula were reported as an essential factor in the promotion of inclusive education for all students.

6. **Effective parent involvement**. Schools and districts conducting inclusion programs reported that, in the past, parental involvement had been more perfunctory than substantive, more a matter of honoring due process procedures than enhancing the educational experience. Inclusive schools report encouraging parental participation through family support services and educational programs that engage parents as co-learners with their children. Programs that bring a wide array of services to children in the school setting report at least two sets of benefits—the direct benefits to the children and the opportunities provided for parents and other family members to become involved in school-based activities.

Models and Classroom Practice that Support Inclusion

The national survey reports differing roles for teachers in several models of inclusive education:

- **a co-teaching model**, where the special education teacher co-teaches alongside the general education teacher;
- **parallel teaching**, where the special education teacher works with a small group of students from a selected special student population in a section of the general education classroom;
- **co-teaching consultant model**, where the special education teacher still operates a pull-out program, but also co-teaches within the general education classroom several hours a week;
- **a team model**, where the special education teacher joins one or more general education teachers to form a team that is then responsible for all of the children in the classroom or at a particular level; and
- **methods and resources teacher model**, where the special education teacher, whose students have been distributed in general classes, works with the general education teachers.

The following classroom practices have been reported as supporting inclusive education:

- **Multilevel instruction** allows for different kinds of learning within the same curriculum. Here the focus is on key concepts to be taught, alternatives in presentation methods, willingness to accept varying types of student activities and acceptance of multiple outcomes, different ways in which students can express their learning, and diverse evaluation procedures.
- **Cooperative learning** involves heterogeneous groupings of students, allowing for students with a wide variety of skills and traits to work together. Differing models of cooperative learning are reported as giving greater emphasis to the process of the group's work and to assessing outcomes for individual members as well as the team as a whole. Individual districts using cooperative learning declare that it promotes students' planning and working together.
- **Activity-based learning** gives emphasis to learning in natural settings, the production of actual work products, and performance assessment. It moves learning from being solely a classroom-based activity to encouraging and preparing students to learn in community settings.
- **Mastery learning** focuses on the specifics of what a student is to learn and then allows sufficient opportunities for her/him to gain "mastery." Inclusive schools using mastery learning report attention to relearning, reteaching, and consideration of students' learning styles.
- **Technology** is often mentioned as being a support for students and teachers. Uses include record keeping, assistive devices such as reading machines and Braille-to-print typewriters, and drill and instructional programs.
- **Peer support and tutoring programs** are reported as having multiple advantages. Placing students in instructional roles enhances the teaching resources of the school. It is mentioned as positive for both the students and the student tutors. It recognizes that some students learn by teaching others. Such programs place students at the center of the learning process.

For more information about this study, contact the National Center on Educational Restructuring and Inclusion, The Graduate School and University Center, The City University of New York, 33 West 42 Street, New York, NY 10036; 212/642-2656; 212/642-1972 (FAX).

West Virginia Study Looks at Inclusion in Other States

In October 1993, the West Virginia Developmental Disabilities Planning Council released a national study that highlights strategies to make inclusion a successful experience for students with disabilities, their teachers, and classmates. Conducted for the Council by Dianne Greyerbiehl of the University of Maryland, the study included surveys of teachers and administrators in every state and in-depth interviews with 10 model states.

Greyerbiehl's findings show that the states most successful in implementing inclusion:

- promote positive values and beliefs about students with disabilities;
- develop a philosophy and plan for inclusion that involves all stakeholders, including parents, teachers, administrators, legislators, business and community leaders;
- provide training for inclusion;
- provide sufficient support to the general education classroom (a range of support should be available to the regular classroom teacher, including classroom aides, availability of specialist help when needed, reduced class size, and adequate training and materials);
- utilize collaborative teaching strategies; and
- establish site-based management teams and forums (all model states have some type of local planning group at the building level that involves major stakeholders, particularly teachers, parents, and building administrators).

(Source: *West Virginia School Journal*, Vol. 122, No. 10; June 1994)

LEGALLY SPEAKING

What Does Federal Law Require?

The Constitution of the United States guarantees that all citizens have "equal protection of the laws" and are not to be deprived of "life, liberty, or property, without the process of law" (Amendments 5 and 14). The three federal laws that protect individuals with disabilities—Section 504 of the Rehabilitation Act of 1973; the Individuals with Disabilities Education Act, Part B (IDEA); and the Americans with Disabilities Act of 1990 (ADA)—base their authority on these constitutional principles (Latham and Latham, 1992). Language found in these laws—"least restrictive environment" (34 CFR §300.550), "most integrated setting appropriate," and "not separate or different" (34 CFR §104.4)—relates to the same constitutional principles, and is also used to support the practice of inclusion. Inclusion, therefore, reflects the intent of the law that children with disabilities be educated with their nondisabled peers to the extent possible or appropriate, according to constitutional guarantees for all citizens.

Most students with disabilities in public elementary and secondary schools receive special education and related services under either Section 504 or IDEA, since ADA was not meant to duplicate education services provided by existing legislation. The following excerpts from various sources provide information about the legal requirements of Section 504 and IDEA, particularly as they pertain to the concept and practice of inclusion.

Section 504 of the Rehabilitation Act of 1973

Section 504 of the Rehabilitation Act of 1973 requires that:

> "A recipient [of federal funds] to which this subpart applies shall educate, or shall provide for the education of, each qualified handicapped person in its jurisdiction with persons who are not handicapped to the maximum extent appropriate to the needs of the handicapped person. A recipient shall place a handicapped person in the regular educational environment operated by the recipient unless it is demonstrated by the recipient that the education of the person in the regular environment with the use of supplementary aids and services cannot be achieved satisfactorily. Whenever a recipient places a person in a setting other than the regular educational environment pursuant to this paragraph, it shall take into account the proximity of the alternate setting to the person's home." (34 CFR 104.34)

Individuals with Disabilities Education Act (IDEA)

IDEA requires that school districts place students with disabilities in the "least restrictive envi-

BEST COPY AVAILABLE

ronment appropriate" and that they offer these students "a continuum of alternative placements." Excerpts from the law appear in the box below.

These regulations appear to require that schools make a significant effort to find an inclusive solution for a child. But how far must schools go? In recent years, the federal courts have interpreted these rules to require that children with very severe disabilities be included in the classroom they would otherwise attend if not disabled—even when they cannot do the academic work of the class—if there is a potential social benefit, if the class would stimulate the child's linguistic development, or if the other students could provide appropriate role models for the student. Educators need to be aware of such developments in the federal courts, because court findings in one case tend to set precedent for future courts considering similar matters. These developments suggest that parents are increasingly able to go to the courts in attempts to require reluctant school districts to include their children in "regular" classes in situations where the child may not be able to "keep up" with the standard work of the class (Rogers, 1993).

Throughout the literature on inclusion, six court cases to date have been viewed as significant. School districts can use the courts' rulings in these cases to help assess the legality of their own inclusion ef-

Least Restrictive Environment

§ 300.550 General.

(a) Each State educational agency shall insure that each public agency establishes and implements procedures which meet the requirements of § § 300.550-300.556.

(b) Each public agency shall insure:

(1) That to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped, and

(2) That special classes, separate schooling, or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

§ 330.551 Continuum of alternative placements.

(a) Each public agency shall insure that a continuum of alternative placements is available to meet the needs of handicapped children for special education and related services.

(b) The continuum required under paragraph (a) of this section must:

(1) Include the alternative placements listed in the definition of special education under § 300.13 of Subpart A (instruction in regular classes, special classes, special schools, home instruction, and instruction in hospitals and institutions), and

(2) Make provision for supplementary services (such as resource room or itinerant instruction) to be provided in conjunction with regular class placement.

§ 300.552 Placements.

Each public agency shall insure that:

(a) Each handicapped child's educational placement: (1) is determined at least annually; (2) is based on his or her individualized education program; and (3) is as close as possible to the child's home;

(b) The various alternative placements included under Reg. 300.551 are available to the extent necessary to implement the individualized education program for each handicapped child;

(c) Unless a handicapped child's individualized education program requires some other arrangement, the child is educated in the school which he or she would attend if not handicapped; and

(d) In selecting the least restrictive environment, consideration is given to any potential harmful effect on the child or on the quality of services which he or she needs." (34 CFR 300.552)

Comment. Section 300.52 includes some of the main factors which must be considered in determining the extent to which a handicapped child can be educated with children who are not handicapped. The overriding rule in this section is that placement decisions must be made on an individual basis . . . .

The analysis of the regulations for Section 504 of the Rehabilitation Act of 1973 . . . includes several points regarding educational placements of handicapped children which are pertinent to this section:

1. With respect to determining proper placements, the analysis states: '. . . it should be stressed that, where a handicapped child is so disruptive in a regular classroom that the education of other students is significantly impaired, the needs of the handicapped child cannot be met in that environment. Therefore regular placement would not be appropriate to his or her needs . . . .'

2. With respect to placing a handicapped child in an alternate setting, the analysis states that among the factors to be considered in placing a child is the need to place the child as close to home as possible. Recipients are required to take this factor into account in making placement decisions. The parent's right to challenge the placement of their child extends not only to placement in special classes or separate schools, but also to placement in a distant school, particularly in a residential program. An equally appropriate education program may exist closer to home; and this issue may be raised by the parent under the due process provisions of this subpart.

§ 300.553 Nonacademic settings.

In providing . . . nonacademic and extracurricular services . . . each public agency shall insure that each handicapped child participates with nonhandicapped children . . . to the maximum extent appropriate to the needs of that child.

Comment. Section 300.553 is taken from a new requirement in the final regulations for Section 504 of the Rehabilitation Act of 1973. With respect to this requirement, the analysis of the Section 504 Regulations includes the following statement: "[A new paragraph] specifies that handicapped children must also be provided nonacademic services in as integrated a setting as possible. This requirement is especially important for children whose educational needs necessitate their being solely with other handicapped children during most of each day. To the maximum extent appropriate, children in residential settings are also to be provided opportunities for participation with other children."

§ 300.554 Children in public or private institutions.

Each State educational agency shall make arrangements with public and private institutions . . . to insure that § 300.550 is effectively implemented.

Comment. Under section 612(5)(B) of the statute, the requirement to educate handicapped children with nonhandicapped children also applies to children in public and private institutions or other care facilities. Each State educational agency must insure that each applicable agency and institution in the State implements this requirement. Regardless of other reasons for institutional placement, no child in an institution who is capable of education in a regular public school setting may be denied access to an education in that setting.

[34 CFR §§ 300.550 - 300.554 (1992).]

forts. Arnold and Dodge (1994) provide a discussion of these cases.

- ***Greer v. Rome City School District*** (11th Circuit Court, 1992). The Rome City (GA) School District wanted to place Cristy Greer, a 10-year-old with Down's syndrome, in a self-contained classroom that wasn't in her neighborhood school. Cristy's parents objected; they wanted her in regular education classes at the school closest to their home. The 11th Circuit U.S. Court of Appeals held for the parents, saying the district violated provisions of the Individuals with Disabilities Education Act (IDEA).

Specifically, the court said, "before the school district may conclude that a handicapped child should be educated outside of the regular classroom, it must consider whether supplemental aids and services would permit satisfactory education in the regular classroom. The school district must consider the whole range of supplemental aids and services, including resource rooms and itinerant instruction, for which it is obligated under the Act and the regulations promulgated thereunder to make provisions.

"Only when the handicapped child's education may not be achieved satisfactorily, even with one or more of these supplemental aids and services," the court said, "may the school board consider placing the child outside of the regular classroom."

Rome City had considered only three options for Cristy: the regular classroom with no supplemental aids and services, the regular classroom with some speech therapy only, and the self-contained special education classroom. In weighing only these limited options, the district did not comply with the IDEA's mandates, the court determined.

As for the district's argument about the cost of providing those aids and services, the court said a district may not decline to educate a handicapped child in a regular classroom because the cost is incrementally more expensive than educating the child in a self-contained special education classroom.

On the other hand, the court said, a school district cannot be required to provide a handicapped child with his or her own full-time teacher, even if this would mean the child would get a satisfactory education in a regular classroom.

- ***Sacramento City Unified School District v. Holland*** (9th Circuit Court, 1994). In this case, the court considered the Sacramento, CA, school district's proposal that 9-year-old Rachel Holland, a child with an IQ of 44, spend half of her school time in a special education classroom and half in a regular education classroom. The parents challenged the district's proposal, stating that they wanted Rachel in a regular classroom full time.

The lower court decision said IDEA creates a strong preference for mainstreaming, imposing on the school district the burden of proving the child cannot be mainstreamed. In making its decision, the court considered the factors outlined in *Daniel R.R.*, a 1989 Texas case (see page 14). In that case, the court found that under IDEA, a disabled child must be educated in a regular classroom if the child can receive a satisfactory education there, even if it is not the best academic setting for that child. The court noted the importance of the nonacademic benefits of mainstreaming, such as improved self-esteem and increased motivation. The Holland case adopted these findings.

In considering the effect of the child's placement on others, the court in the Holland case held that the school district must consider all reasonable means to minimize the demands on the teacher: "A handicapped child who merely requires more teacher attention than most other children is not likely to be so disruptive as to significantly impair the education of other children," the court said. "In weighing this factor, the school district must keep in mind its obligation to consider supplemental aids and services that could accommodate a handicapped child's need for additional attention."

On appeal, the 9th Circuit Court upheld the

Worth Quoting

"Although mild disabilities are relatively common (affecting about one child in ten), severe disabilities are far less common (affecting only about one child in a hundred). Thus, if four or five children with severe disabilities are placed with the same class of about 25 children, it is statistically extremely unlikely that the classroom is actually the room to which all of those children would possibly have been assigned if they had not been disabled. This is not inclusion. Such arrangements tend not to be beneficial to any of the children in the class—and create extremely frustrating work environments for the teachers assigned to such classes. It is easy to see why teachers in such situations might feel ineffective or exploited! Inclusion works when all staff members in the school accept their fair share of responsibility for all the children who live within the school's attendance area." (Joy Rogers, "The Inclusion Revolution," *PDK Research Bulletin*, No. 11, May 1993) decision of the lower court. And in doing so, it adopted a **four-part balancing test** to determine whether a school district is complying with the provision of IDEA that requires placement of children with disabilities in a regular classroom to the maximum extent appropriate. The factors considered in the balancing test: (1) the educational benefits of placing the child in a full-time regular education program, (2) the nonacademic benefits of such a placement, (3) the effect the child would have on the teacher and other students in the regular classroom, and (4) the costs associated with full-time placement in a regular education program.

The court rejected the school board's argument that it would lose up to $190,764 in state funding if Rachel wasn't enrolled in a special education class at least 50 percent of the day and that it would cost more than $100,000 to educate Rachel full time in a regular classroom. The court found that any comparative cost analysis should weigh two considerations: the cost of placing the student in a special class of approximately 11 other children, with a full-time special education teacher and two full-time aides; and the cost of placing her in a regular class with a part-time aide. The school district had offered no evidence of this cost comparison, and the court found that the cost factor did not weigh against mainstreaming Rachel.

Finally, the appeals court said the Sacramento district's proposition that the student must be taught by a special education teacher ran directly counter to the congressional preference that children with disabilities be educated in regular classes with children who are not disabled. Accordingly, the court rejected this, as well as all of the district's other arguments, in upholding the lower court's ruling in favor of "including" Rachel Holland in a regular education program.

- ***Oberti v. Board of Education of the Borough of Clementon (NJ) School District*** (3rd Circuit Court, 1993). The student in this case is Rafael Oberti, an 8-year-old Down's syndrome child with severely impaired intellectual functioning and communication skills. (Rafael's disability places him among the lowest 1 percent of the population.) His parents wanted Rafael included full time in a regular education classroom. The school district had proposed putting Rafael in a self-contained program because of his severe disability and highly disruptive behavior.

The 3rd Circuit Court affirmed a district court decision that Rafael be provided with a more inclusive educational placement. Specifically, the circuit court highlighted three factors for courts to consider in determining whether a child with disabilities can be educated satisfactorily in a regular classroom with supplementary aids and services.

First, the court should consider whether the school district made reasonable efforts to accommodate the child in a regular class. The school is required to "consider the whole range of supplemental aids and services, including resource rooms and itinerant instruction." The school also must attempt to modify the regular educational program to accommodate a disabled child.

Second, courts should compare the educational benefits the child would receive in a regular classroom (with supplementary aids and services) with the benefits to be had from a segregated, special education classroom. Expert testimony will have to be relied upon heavily in considering this factor. However, courts must pay special attention to the benefits a child may obtain from integration in a regular classroom—such as development of social and communication skills from interaction with peers who aren't disabled—that cannot be achieved in a segregated environment. Thus, a determina-

Special Education Legislation 1974 - 1994

1975—*Education of All Handicapped Children Act (P.L. 94-142 or EHA)* requires that a free and appropriate education and related services be provided in the least restrictive environment (LRE) and that an individualized education plan (IEP) be written for each student.

1983—*P.L. 98-199*: Amendments emphasize planning for transitional services for secondary students and authorize parent training and information centers.

1986—*P.L. 99-457*: Amendments extend the provisions to children ages 3-5, and create a discretionary early intervention program for children 2 and younger.

1990-91—Congress renames EHA the Individuals with Disabilities Education Act (P.L. 101-476 and P.L. 102-119 or IDEA). IDEA expands the definition of disabilities (formerly handicaps) to include autism and traumatic brain injury; and adds new related services—therapeutic recreation, assistive technology, social work, and rehabilitation counseling.

1994—Congress begins considering recommendations for IDEA's reauthorization in 1995, including a provision that specifically addresses the inclusion of disabled students in regular classes.

(Source: *Educational Leadership*, December 1994/January 1995) tion that a disabled child might make greater academic progress in a segregated program might not warrant excluding that child from a regular classroom.

Third, courts should consider the effect the inclusion of a child with disabilities might have on the education of other children in the regular classroom. The 3rd Circuit recognized that, although inclusion of children with disabilities in regular classrooms might benefit the class as a whole, a disabled child might be "so disruptive in a regular classroom that the education of other students is significantly impaired."

Moreover, if a child causes excessive disruption in class, the child might not be benefiting educationally in that environment. Accordingly, if the child has behavioral problems, the court should consider the degree to which these problems could disrupt the class. In addition, the court should consider whether the child's disabilities will demand so much of the teacher's attention that the teacher will ignore other students.

If, after considering these factors, the court determines that the child cannot be educated satisfactorily in a regular classroom, the court must consider whether the school has included the child in school programs with nondisabled children to the maximum extent appropriate.

- ***Connecticut Association for Retarded Citizens v. State of Connecticut Board of Education*** (District Court, Connecticut, 1993). This suit was brought by the parents of four mentally retarded students. The parents were seeking class certification—that is, they wanted their lawsuit accepted as a class action, claiming their children had been inappropriately denied special education instruction in regular classrooms. The District Court of Connecticut rejected the request for class certification, saying the appropriate level of integration for children with disabilities must be determined on a case-by-case basis.

This case is significant because it points out the IDEA requirement that every special education placement be based on an IEP. Furthermore, the court found that some children with disabilities may not benefit from full inclusion in the regular classroom.

- ***Statum v. Birmingham Public Schools Board of Education*** (Middle District Court of Alabama, 1993). Here, an Alabama court heard an appeal of a hearing officer's decision, which affirmed the Birmingham school district's recommendation to change the placement of a 7-year-old girl with physical and mental disabilities ranging from severe to profound. The student had been in a regular education kindergarten (with accommodations), but the district's placement team recommended a self-contained program.

The girl's mother maintained her daughter would continue to benefit from a regular education placement, if provided with adequate supplementary aids and services. The court agreed. It first determined that the burden of proof was on the district, because district officials wanted to remove the student from the regular classroom. The court then concluded the district failed to demonstrate that the student couldn't be satisfactorily educated in the regular education setting. Specifically, the district failed to show (1) that the self-contained program would enhance the student's education, (2) that the student's IEP goals and objectives could not be implemented within the regular classroom with supplementary aids and services, (3) that implementing these goals and objectives within the regular classroom would have an adverse effect on other students in the class, and (4) that the costs of the supplementary aids and services necessary to educate the student in the regular classroom would impair the district's ability to educate other students.

The court ordered the district to educate the student in the regular classroom with appropriate supplementary aids and services for the duration of the school year.

- ***Poolaw v. Parker Unified School District*** (Federal District Court, Arizona, 1994). In this case, a federal district court in Arizona upheld a school district's recommendation to place a child in a residential placement, contrary to his parents' desire that he be educated in the regular classroom. For a number of years, Lionel Poolaw, a profoundly deaf 12-year-old, was educated in a regular classroom, with supplementary aids and services, including resource-room instruction, speech and language therapy, assistance from a teacher for the hearing impaired, and a full-time certified interpreter. Poolaw's parents moved into the Parker Unified School District, where Lionel was again enrolled in a regular education placement and again received resource assistance as well as speech and language therapy. He was not, however, provided with a teacher for the hearing impaired or a full-time interpreter. When the district proposed moving Lionel to a state residential school for the deaf and blind, the boy's parents disagreed and filed suit in district court after two due process hearings upheld the school district's recommendation.

The district court, applying the *Daniel R.R.* test (see next article), ruled in favor of the school district. The student's records from another state, which the school district relied on, clearly documented the failure of a four-year effort to mainstream Lionel in a public school setting with supplemental aids and services. After presenting a thorough analysis of the facts and applicable law, the court held that the benefits of a mainstream placement for Lionel were minimal and that these benefits were significantly outweighed by the fact that his educational needs could be met appropriately only by the placement the school district recommended.

References

Arnold, J., & Dodge, H. (1994, October). Room for all. *The American School Board Journal*, 24-25.

Latham, P., & Latham, P. (1992). *Attention deficit disorder and the law.* Washington, D.C.: JKL Communications.

Rogers, J. (1993, May). The inclusion revolution. *PDK Research Bulletin No. 11.* 2.

Defining the Least Restrictive Environment

One court case that can be particularly helpful in defining least restrictive environment (LRE) is *Daniel R.R. v. State (TX) Board of Education (1989).* The 5th Circuit Court developed a standard for determining when placement full time in a general education class, with supplementary aids and services, is appropriate and when removal to a special education class is justified. The first step in this process, the court held, is to "examine whether the state has taken the steps to accommodate the handicapped child in regular education." That is, whether it has provided supplementary aids and services and modified the regular education program to meet the needs of the student. If the state has failed to do this, then it is in violation of the law. In making these accommodations, the court set forth two limits: (1) the general education teacher is not required to devote all or most class time to the child with a disability and (2) the general education program need not be modified beyond recognition.

The next step, the court held, is to determine whether the child will benefit from this modified general education program. The benefits to be examined included academic achievement, but they are not limited to it. The court stated that "[i]ntegrating a handicapped child into a nonhandicapped environment may be beneficial in and of itself." Finally, the court stated that school districts may examine the effect of the disabled child's presence on other children. The standards for this are narrowly drawn. This case established several questions districts can use to decide whether a disabled child can be educated satisfactorily in the regular classroom. Arnold and Dodge (1994) explore these questions and suggest that a school district weigh its answers to each before removing any child from the regular education classroom.

1. **Have you taken steps to accommodate children with disabilities in regular education?** The Individuals with Disabilities Education Act (IDEA) requires school districts to provide supplementary aids and services and to modify the regular education program in an effort to mainstream children with disabilities. Examples of these modifications include shortened assignments, note-taking assistance, visual aids, oral tests, and frequent breaks. The modifications should be geared to each disabled child's individual needs.

2. **Are your district's efforts to accommodate the child in regular education sufficient or token?** A school district's efforts to supplement and modify regular education so disabled children can participate must amount to more than "mere token gestures," according to the ruling in *Daniel R.R.* The IDEA requirement for accommodating disabled children in regular education is broad. But, the ruling says, a school district need not provide "every conceivable supplementary aid or service" to assist disabled children in regular education. Furthermore, regular education instructors are not required to devote all or even most of their time to one disabled child to the detriment of the entire class.

   A district also is not required to modify the regular education program beyond recognition. As the court held in *Daniel R.R.*: "[M]ainstreaming would be pointless if we forced instructors to modify the regular education curriculum to

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Use this form to order materials from AEL.

Please check (✔) your selections, and complete the shipping information at the bottom of page 3. **Be sure to include payment for priced items.**

The Link Vol. 14, No.1 • Spring-Summer 1995
Second Printing

(fold here)

From: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

Postage Required

☐ Change of address; please correct your records. ☐ I am not on your mailing list; please add my name.

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

Other Resources

___*Policy Briefs:* "ADHD—New Legal Responsibilities for Schools" (1994) Soleil Gregg

A memorandum from the U.S. Department of Education in 1991 clarified schools' legal responsibilities to children with Attention Deficit Hyperactivity Disorder (ADHD) under the Individuals with Disabilities Education Act, Part B, and Section 504 of the Rehabilitation Act of 1973. This brief—the first in a series on ADHD—explains how both of these statutes and the Americans with Disabilities Act apply to children with ADHD. It defines the responsibilities of schools and state education agencies for locating, evaluating, and educating these children; includes questions for policymakers to ask about service provision; and reviews teacher training and support systems in AEL's four-state Region. $2; 8 pp.

___*Policy Briefs:* "Understanding and Identifying Children with ADHD: First steps to effective intervention" (1995) Soleil Gregg

The purpose of this issue of *Policy Briefs* is to help policymakers understand ADHD and its effects on students. The second in a series, the brief reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2; 8 pp.

___*Policy Briefs:* "ADHD—Building Academic Success" (1995) Soleil Gregg

The third in a series of *Policy Briefs* on ADHD, this brief examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

___*Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools* (1995) Rebecca Burns

This publication helps secondary school faculties prepare for curriculum integration through a four-step process: (1) exploring the promises and problems of curriculum integration; (2) identifying boundaries, proposing solutions, and recognizing support for integration within schools and communities; (3) reaching consensus; and (4) identifying and attaining supports and resources needed to design and implement an integrated curriculum. The facilitator's guide provides step-by-step directions for activities, transparency masters, and participant handouts for use in a professional development setting. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10; 83 pp.

___*Increasing Student Access to Mathematics and Science: A Guide for Classroom Equity Projects* (1995)

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. Limited instructional materials, equipment, and/or human resources may prevent classroom projects that address the needs of underserved students. The guide provides a description of projects, tips from teachers, and information on funding sources and proposal writing. $5; 44 pp.

___*Parents and schools: From visitors to partners* (1993) Rebecca Burns, Editor

This book, part of NEA's Restructuring Series, builds on the experiences of educators and parents who have formed successful school-home partnerships. It includes a review of the research on parent involvement; strategies to initiate and maintain effective two-way home-school communication; in-depth descriptions of exemplary programs; a summary of practices found in successful school programs; and a list of resources educators and parents can use to plan, implement, and evaluate partnership efforts. $11.95, 103 pp.

Inclusion Resources

ERIC Digest:

___*Including Students with Disabilities in General Education Classrooms* (1993) ERIC Clearinghouse on Disabilities and Gifted Education.

This information sheet summarizes requirements of the Individuals with Disabilities Education Act regarding inclusion of students with disabilities in general education classrooms and lists activities and support systems that have been found successful in fostering such inclusion. Suggestions are given in the area of attitudes and beliefs, services and physical accommodations, school support, collaboration, and instructional methods. A sample scenario illustrates collaborative teaching by a regular and a special education teacher in a third grade classroom (free).

___Inclusion. Information Search Package (1995)

This search package contains articles from journals and periodicals, research reports, position statements, an ERIC digest, a minibibliography, product announcements, abstracts, and searches of the ERIC database. $16; 219 pp.

___*Inclusion of Special Needs Students: Lessons from Experience* (1996)

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp. VEA members may obtain from VEA.

___*Teacher Perceptions of and Strategies for Inclusion: A Regional Summary of Focus Group Interview Findings* (1996)

In 16 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. The most frequently mentioned concerns and recommendations are included in this resource, along with descriptions of more than 100 effective strategies that were developed, tested, and contributed by these experienced practitioners. $15; 240 pp.

State summaries of interview findings are also available at no additional cost (one state summary per purchase): *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings from*

___Kentucky ___Tennessee
___Virginia ___West Virginia

___*Voices from the Field: Secondary School Inclusion in the AEL Region*

State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. AEL staff conducted interviews with principals and special educators at these schools concerning several issues: courses special-needs students are taking; schedules of students and special educators; collaboration of special and regular educators; and any existing arrangements for joint planning time, training, and other support services. Audiotape. $10.

Inclusion Resources

ORGANIZATIONS

American Federation of Teachers, 555 New Jersey Ave., NW, Washington, DC 20001-2079; 202/879-4400

Association for Retarded Citizens, 500 E. Border St., S-300, Arlington, TX 76010; 817/261-6003

Autism Society of America, 8601 Georgia Ave., Ste. 503, Silver Spring, MD 20910; 800/328-8476

Children and Adults With Attention Deficit Disorders (CH.A.D.D.), 499 Northwest 70th Ave., Suite 308, Plantation, FL 33317; 305/587-3700

Council for Exceptional Children, 1920 Association Dr., Reston, VA 22091-1589; 703/264-9474

Council of Administrators of Special Education, Inc., 615 16th St., NW, Albuquerque, NM 87104; 505/243-7622

ERIC Clearinghouse on Disabilities and Gifted Education, 1920 Association Dr., Reston, VA 22091-1589; 800/328-0272

Learning Disabilities Association of America, 4156 Library Rd., Pittsburgh, PA 15234; 412/341-1515

National Association of School Psychologists, 8455 Colesville Rd., Suite 1000, Silver Spring, MD 20910; 301/608-0500

National Center for Learning Disabilities, 381 Park Ave., Suite 1420, New York, NY 10016; 212/545-7510

National Center on Educational Restructuring and Inclusion, The Graduate School and University of New York, 33 West 42 Street, New York, NY 10036; 212/642-2656 or 642-2151

National Down Syndrome Congress, 1800 Dempster St., Park Ridge, IL 60068-1146; 800/232-6372

National Education Association, 1201 16th St., NW, Washington, DC 20036; 202/833-4000

National Information Center for Children and Youth With Disabilities, P.O. Box 1492, Washington, DC 20013; 202/884-8200

Orton Dyslexia Society, 8600 LaSalle Rd., Chester Bldg. #382, Baltimore, MD 21286; 410/296-0232

Phi Delta Kappa, Center for Evaluation, Development, and Research, P.O. Box 789, Bloomington, IN 47402; 812/339-1156

TASH (The Association for Persons with Severe Handicaps), 29 W. Susquehanna Ave., Ste. 210, Baltimore, MD 21204; 410/828-8274

STATE SPECIAL EDUCATION OFFICES

Kentucky Department of Education, Division of Exceptional Children Services, 500 Mero St., Rm. 805, Frankfort, KY 40601; 502/564-4970

Tennessee Department of Education, Special Education Programs, 132 Cordell Hull Building, Nashville, TN 37219; 615/741-2851

Virginia Department of Education, Special Education, Division of Pre & Early Adolescent Education, P.O. Box 6Q, Richmond, VA 23216-2060; 804/225-2847

West Virginia Department of Education, Office of Special Education, Bldg. 6, Rm. B-304, Capitol Complex, Charleston, WV 25305; 304/558-2696

RESOURCES FROM ERIC

To order any of the resources listed below, please contact ERIC Document Reproduction Service (EDRS), 7420 Fullerton Rd., Suite 110, Springfield, VA 22153-2852; 800/443-3742. Telephone orders may be charged to VISA or Mastercard—give the ERIC document number (for example, ED300300) when you call. You may also pay by check, if you first call the 800 number and have EDRS calculate the cost for a mail order. For an additional fee, orders can be FAXed.

Full Inclusion: Analysis of a Controversial Issue—ED366145; Karol A. Reganick.

This literature review and analysis looks at the concept of full inclusion. The paper discusses the values emphasized and compromised by the full inclusion model, such as increased emphasis on cooperative learning and social development, and possible compromises in education excellence and efficiency. The paper concludes that full inclusion is the preferred condition but should not be the only choice. It also stresses the importance of specialists, classroom teachers, parents, and students participating in student program development and decisionmaking.

The Effects of Full Inclusion on Regular Education Teachers: Final Report—ED365059; Beverly Rainforth, California Research Institute.

This study looks at the effects of inclusion on regular classroom teachers at the Harry L. Johnson Elementary School in Johnson City, NY. The school has been gradually integrating students with severe disabilities into regular classes since 1986. Teachers' perceptions were assessed through interviews, a questionnaire, direct observation, and other data. The effects of inclusion on teachers were positive, with findings organized into themes about teacher attitudes and practices. Themes included teaching and learning about disabilities, curriculum and materials, collaborative problem solving, student assessment and IEPs, flexibility, stress, and accountability. The questionnaire and observation form are included.

Guidelines for Inclusive Schools—ED365026; Maine Department of Educational and Cultural Services; Center for Community Inclusion, Maine University (Orono) College of Education.

These guidelines were developed as part of Maine's statewide project for inclusive schools, Project LEARNS (Local Education for All in Regular Neighborhood Schools). The model proposes that students with severe disabilities be provided with a range of services and supports within regular classes rather than with a continuum of placements. The guidelines briefly address commitment to inclusion, adequate and appropriate planning, and provision of improved education and related services.

Integrating Students with Special Needs: Policies and Practices That Work. A Report from Professional Standards and Practice—ED353708; National Education Association (NEA).

This monograph—resulting from a meeting of regular and special education leaders—addresses what works for the successful inclusion of students with special needs in regular education classrooms. Focusing specifically on inclusion of students with learning disabilities, the paper includes a review of the current situation, an analysis of options, recommendations, and a glossary. Recommendations are framed as questions to guide development of state and local strategies toward effective implementation of the least restrictive environment principles. Questions are derived from NEA's policy and position statements and address education environment, policies and practices, staff preparation/professional growth, roles and responsibilities, decisionmaking, and rights and responsibilities.

Corvallis School Inclusion Project—ED357566; Jo Jakupcak, Richard Rushton.

The "Teach Me To . . . Teach Me, Too!" program is designed to meet the needs of secondary students with disabilities within the regular education setting, with the regular education curriculum. In a team-teaching approach, the regular and special educator work together. The model involves preteaching key concepts to students with special learning needs; teaching the entire

BEST COPY AVAILABLE

class, often using cooperative learning groups; and reviewing key concepts with special-needs students before testing occurs. The regular educator teaches course content, and one day a week, the special educator presents a lesson on learning per se, focusing on learning styles, time management, note taking, test-taking strategies, and other topics. Of 10 special-needs students who took part in this program, all passed the course with a grade of "C" or better.

Integration/Inclusion Needs Assessment: Providing Education for Everyone in Regular Schools (PEERS)—ED358634; Ann T. Halvorsen and others; In Statewide Systems Change Project for the Integration of Severely Disabled Students in California: The PEERs Project. Final Report.

This three-part needs assessment instrument was developed as part of the PEERS Project, which was designed to integrate (1) students with severe disabilities who were previously at special centers into services at regular school sites, and (2) students who were in special classes in regular schools into general education. Part 1 is for use with local education agencies (LEAs) that have developed a written inclusion plan. It is intended to help evaluate the plan in the areas of least restrictive environment policy, student placement, physical plant availability and selection, accessibility criteria, staff assignments, administrative roles/responsibilities, interagency agreements, site and staff preparation, definitions of integration and/or inclusion, and facilitation of peer interactions. Part 2 deals with attitudes toward inclusion, resources to support transitions, space concerns within accessible schools, personnel role changes, site preparation needs, and parent reactions to the integration/inclusion plan. Part 3, intended for on-site review, covers environmental considerations, school climate, special education teacher integration, general education classroom environment, student integration, and curricular and instructional models.

Cooperative Learning as an Inclusion Strategy: The Experience of Children with Disabilities—ED360778; Rollanda E. O'Connor and Joseph R. Jenkins; paper presented at American Educational Research Association (AERA) annual conference.

This study of students with mild disabilities in Grades 3-6 used teacher interviews and observations to assess the behaviors of 10 special and 10 regular education students in cooperative learning groups. Results are discussed in terms of who is providing help to the student with disabilities and how often, what contributions the student makes to group tasks, the assignment length, the teacher's role in successful participation of students with disabilities, teacher expectations for student competence, and setting up expectations. One conclusion is that successful use of cooperative learning as an inclusion strategy will require reorganizing the ways resources, services, and modifications are provided to students with disabilities.

What Is Inclusion, Anyway? An Analysis of Organizational Position Statements—ED369234; Susan M. Catlett, Trina W. Osher; National Association of State Directors of Special Education.

This study examined various national organizations' policies and positions on inclusion. The report provides a content analysis of statements from 18 organizations with an interest in the education of students with disabilities, including advocacy groups, professional associations, and leadership organizations. The paper deomonstrates that organizations agree that children with disabilities should be included in general education to a greater extent than they have been, but disagree concerning the degree of appropriate inclusion. The concern of many appears to be that the full range of services, some currently available only in specialized programs and facilities, will be lost if full inclusion is implemented inappropriately. Appendices include a list of the organizations surveyed and materials used in the content analysis.

Key Questions Related to Inclusion and Collaboration in the Schools—ED370331; Lorna Idol, paper presented at the Annual International Convention of the Council for Exceptional Children.

This paper presents 15 questions for educators and administrators to ask themselves in designing and implementing inclusive and collaborative school programs. Questions and the accompanying answers cover issues such as funding, parental support, district philosophy, support for teachers, service delivery, teacher attitudes, regular education student and staff preparation, and program evaluation. Together, the questions are intended to guide the planning process and create a solid proactive foundation for the collaborative development and implementation of inclusive education programs.

Inclusion: An Annotated Bibliography—ED372573; Caroline Moore, Susanne Carter; Western Regional Resource Center.

In this annotated bibliography of recently published literature about inclusion, 279 resources are organized into 19 topical areas and indexed by more than 200 subject descriptors. Each section begins with an overview, and each resource entry includes full bibliographic information, descriptors of topical contents, an abstract, and source and price information. A grants section supplements the bibliography, providing abstracts of 69 currently funded inclusion projects. Topical areas include case studies, checklists, disability awareness, early childhood, fiscal implications, legal issues, legislation, newsletters, philosophy, policies, positions, projects, research, staff training/preparation, strategies/implementation, teacher education/certification, videos, miscellaneous, and grants. The bibliography is also provided on a computer disk (Mac format).

Resource Implications of Inclusion: Impressions of Special Education Administrators at Selected Sites—ED373468; Margaret J. McLaughlin, Sandra H. Warren; Center for Special Education Finance.

This study explored resource allocation issues in schools that had moved toward inclusive education. Interviewed were local special education administrators in 12 school districts across the United States. The study obtained information about personnel (allocation of special education teachers, regular education class sizes, cross funding of personnel, related service providers, and paraprofessionals); transportation; facilities; materials and equipment; and professional development. Findings indicate that initial implementation of inclusion can require additional resources, but as a service delivery mode, inclusion appears to be less expensive than providing services in cluster programs or specialized schools. An appendix lists the school districts interviewed.

Perceptions of Special Education Program Effectiveness and Attitudes Toward Inclusion—ED374595; Barbara J. Fulk, Marilyn A. Hirth; paper presented at AERA.

This project gathered data from 517 regular education teachers regarding self-evaluation of skills for teaching students with disabilities, satisfaction with existing special education services, and attitudes toward an inclusive model of special education service delivery. Results showed significant differences in teachers' perceptions of their own skill level for serving regular versus special education students. The majority of respondents were pleased with inservice education. Feelings were generally positive about collaboration between regular and special educators and about social acceptance of students with disabilities by nondisabled students. Approximately two-thirds of respondents indicated that existing special services were effective overall. Teachers felt strongly that traditional service delivery options should be available, and that placement decisions should be made on an individual basis. The majority felt that inclusion was being forced on them. Fifty percent of respondents were personally supportive of inclusion; 37 percent were not. Teachers felt that improved services would result from smaller class size, more time for collaboration between regular and special educators, modifying assignments and tests for students with disabilities, and building principal support for inclusion.

the extent that the handicapped child is not required to learn any of the skills normally taught in regular education." Such extensive modifications would result in special education being taught in a regular education classroom.

3. **Will the child benefit educationally from regular education?** Central to this question is whether the child can achieve the "essential elements" of the regular education curriculum. Both the nature and severity of the child's handicap must be considered, as well as the curriculum and goals of the regular education class, in determining educational benefit. However, a disabled child cannot be expected to achieve on par with children who don't have disabilities before being permitted to attend the regular education classroom. Also, academic achievement is not the only purpose of mainstreaming. Allowing the child to be with children who aren't disabled can be beneficial in itself.

4. **What will be the child's overall educational experience in the mainstreamed environment?** Just because a child can receive only minimal academic benefit from regular education doesn't mean the child automatically should be excluded from regular education. Districts are advised to consider the child's overall educational experience in the mainstreamed environment, balancing the benefits of regular and special education. Children who can't comprehend many of the essential elements of a lesson still may receive great benefit from their nondisabled peers, who serve as language and behavior models.

   On the other hand, some children might become frustrated by their inability to succeed in the regular education classroom. If this frustration outweighs any benefit received from regular education, mainstreaming might prove detrimental to the child. Similarly, other children might need more structure than is available in the regular education setting. A school district must determine whether mainstreaming would be more beneficial or detrimental to a disabled child, considering both academic and social benefit.

5. **What effect does the disabled child's presence have on the regular classroom environment?** In determining the LRE, districts must consider whether the child's presence in a regular education classroom adversely affects the education other children are receiving. Two criteria should be considered: (1) whether the child engages in disruptive behavior that negatively affects the other children, and (2) whether the disabled child requires so much of the teacher's attention that the teacher is forced to ignore the other children. If the teacher spends so much time with the disabled child that the rest of the class suffers, it is likely that the child should be educated in another service configuration. If it is determined that the child cannot be educated full time in a regular education classroom, the child still should be mainstreamed to the maximum extent appropriate (e.g., for nonacademic classes and activities, such as gym, recess, music, art, or lunch).

In short, placement in regular education is not an "all-or-nothing" proposition. Rather, school districts are required to offer a ***continuum of services*** for disabled children. A disabled child should be mainstreamed in regular education for as much of the time as is appropriate. Rarely will total exclusion from children without disabilities be deemed appropriate.

Reference

Arnold, J. & Dodge, H. (1994, October). Room for all. *The American School Board Journal*, 24-25.

Worth Quoting

"We base our support for the philosophy of inclusion on three fundamental arguments. First, we believe that inclusion has a legal base. The great majority of court cases have not upheld the traditional practice of segregating students with special educational needs. . . . A second argument for inclusion rests on the results of research on best practices. Research continues to show that students who are not pulled out do better than those who are segregated. . . . Finally, . . . a strong moral and ethical argument can be made for the "rightness" of inclusion: it is the best thing to do for the students. . . . In the future, students majoring in education are likely to regard the practice of segregating students with special needs in much the same way as we look upon racial segregation before the 1960s. It will be seen as an embarrassing chapter of our educational history." (Ray Van Dyke, Martha Ann Stallings, and Kenna Colley, "How to Build an Inclusive School Community," *Phi Delta Kappan*, February 1995. Their experiences with inclusion are portrayed in the Academy Award-winning documentary, *Educating Peter*.)

BEST COPY AVAILABLE

Working Forum Finds Sense of Community, Co-teaching Among Traits of Successful Inclusive Schools

The Council for Exceptional Children (CEC) last year convened a Working Forum on Inclusive Schools with nine other education organizations.[*] They identified many schools across the country that have struggled with and solved various complex issues related to inclusive schools. Twelve schools were selected to participate in the forum to relate their planning and implementation stories. While the schools selected have many differences, they are not a representative sample of the schools and communities of North America. The information generated at the working forum is the focus of CEC's report, *Creating Schools for All Our Students: What 12 Schools Have to Say*. The report, which could serve as a blueprint for schools moving toward inclusion, covers such issues as effective planning, co-teaching, technology, and community involvement.

Many of the schools participating in the working forum agreed that fostering a ***sense of community*** was of utmost importance. All are trying some form of ***co-teaching***.

Sense of Community

Inclusive schools have a sense of interconnectedness among staff and children. Most of the schools participating in the forum did not have "building a school community" as a goal when they began their inclusive schools venture. But as school teams worked on including children with disabilities, they found their schools becoming more cohesive and collegial. As staff began to understand the power of their school community, they more consciously addressed ways to foster that sense of community. The forum schools developed a number of strategies to nurture a feeling of community.

A common vision. If the school as a whole shares the vision that all children need to be a respected part of the school community, that vision alone brings its own sense of community.

Problem-solving teams. In almost all the forum schools, a building-based team makes decisions about how students' individual needs are to be met. The problem-solving team meets regularly to plan what is needed for each child with disabilities. Team members work out such issues as whether the child should be in a general classroom for the whole day or part of the day, whether speech therapy should be provided in the student's classroom or in the therapist's office, and so on. More importantly, problem-solving teams determine the type of special instruction and the extent to which it is needed for individual children.

Parents as partners. All of the forum schools said that it is essential to consider parents as partners in the school community. When fully engaged, they volunteer in classrooms or at evening and weekend events and are the bridges between home and school communities. Keeping parents informed has sometimes meant that educators must listen to parents' fears that their children's education would be harmed by more inclusive policies. Participants in the working forum argued that those fears need to be answered, not by soothing words, but by concrete realities.

Teachers as partners. All of the schools that participated in the forum are using some form of co-teaching—a special education teacher and a general education teacher teamed together to instruct a class. Traditionally, teachers work in isolation from each other. Co-teaching requires teachers to give up some of that exclusivity in exchange for gaining a partner to share planning, teaching, discipline, and assessment.

Paraprofessionals as partners. In every school, the paraprofessionals were a quiet key to success. They are both the continuity and support for students, staff, and families. They are a critical element to both the planning and delivery of appropriate services to students.

Students as problem solvers. Students also need to be included in the partnerships and collegial relationships of the school community. Forum participants suggested several ways to do this:

- **Peer mediation.** Students trained in mediation use a rather formal procedure to help resolve disputes among other students.
- **Peer tutoring.** Students help other students learn and review material.

---

[*] Other participants in the working forum: American Association of School Administrators, American Federation of Teachers, The Council of Great City Schools, National Association of Elementary School Principals, National Association of Secondary School Principals, National Association of State Directors of Special Education, National Association of State Boards of Education, National Education Association, and National School Boards Association.

- **Cross-age tutoring**. Older students help younger students learn.
- **Cooperative learning**. Students within classrooms team up in cooperative learning groups.
- **Buddy systems**. Sometimes two children with disabilities are paired, and together the "buddies" enter a general classroom for part of the day with the special education teacher. A more usual form of the buddy system is to pair a child with a disability with a child without a disability. The mother of a child with a disability told other members of the forum that the father of her son's buddy told her that some days the major factor that made his son go to school was his responsibility to his buddy.

Community members as volunteers. Many schools have been working to increase community involvement in schools by requesting that homemakers, retirees, business people, and professionals "mentor" students.

Reducing the use of jargon. One of the barriers to creating a sense of community in schools is the use of specialized terms and acronyms that parents, community members, and even many teachers and paraprofessionals do not understand.

Time for planning. All participants in the working forum agreed that teaching many different kinds of children requires a great deal of planning on the part of teachers. When the only opportunity to plan is during lunch hours or before or after school, collaboration and the quality of instruction suffer. When some staff members are in the building only part of the day or week, collaboration becomes even more difficult. For these reasons, the forum schools carefully prepare common planning times for teachers and other staff members. Some principals feel so strongly about this issue that they themselves teach classes to give their teachers time to plan together.

Bringing services to the student. In many of the forum schools, education specialists, related services professionals, and paraprofessionals come to the classroom and work with individuals or groups of students. When pull-out services are needed, effective planning among teachers and related service professionals can prevent fragmentation. Students can obtain the specialized services they need at a mutually agreed upon time that does not interfere with classroom instruction.

Flexible scheduling. One issue facing all schools is how to manage instructional time in the most efficient way, not only to teach the curriculum, but also to build a sense of community. Forum participants suggested several strategies:

- **Separate academic and activity schedules**. Students who are grouped homogeneously for certain academic classes have the opportunity to interact with other students in nonacademic classes, which are grouped according to students' interests and change every nine weeks.
- **Teaching-learning teams**. Two middle schools in the forum divide each of their grades into teams of about 120 students, with 5 teachers per team. In some schools, teams stay together as the students progress through school. In others, students are part of a different team each year. In addition to their planning time, team teachers meet every day or every other day to discuss thematic approaches or overall teaching strategies. Parents who desire a progress report or who want to express a particular concern may attend the team meetings, and thus do not need to seek out individual teachers. In the forum's middle schools, every team included a special education teacher who works with the general teachers, making sure each student is appropriately accommodated within the curriculum.
- **Longer classes**. Some secondary schools are experimenting with block scheduling, in which students take fewer classes each semester but each class period is longer.
- **Taking a break from the normal schedule**. One secondary school has a mid-year "winter term" where special, intensive classes are grouped

Worth Quoting

"The controversy surrounding inclusion stems, in part, from disagreement among professionals about the meaning of inclusion. Why is inclusion any more controversial than mainstreaming? The fundamental concept appears to be the same. Indeed, the goal of special education should be to provide the knowledge and skills that students with learning disabilities need to lead full and independent lives. For many students, the least restrictive environment in which to accomplish this goal means full inclusion in the general classroom. For others, it may mean educational support in the form of part-time or full-time special classes. Meeting the needs of individual students with learning disabilities must remain the priority and the goal in any inclusion discussion." (Cecil D. Mercer and Holly Lane, "Principles of Responsible Inclusion," *LDA Newsbriefs*, Vol. 29, No. 4, July/Aug 1994) by interest rather than ability level for three weeks. Various community and independent projects are undertaken during this time by students with and without disabilities working together.

- **Homerooms**. One secondary school schedules a half hour between first and second period for "student pursuit time," during which students consult with teachers and each other. Once a week, students gather in a classroom with one teacher to discuss schoolwide issues or work on study skills. This is an opportunity for students who might not ordinarily see each other during the school day to interact and cooperate together on specific skills or subjects.

Co-teaching

All of the schools in the working forum are trying some form of co-teaching. The co-taught class is sometimes bigger than a normal-sized single class, but smaller than two classes combined. The teachers who participated in the forum are adamant that co-teaching benefits not only all students but the teachers as well.

Complementary knowledge and skills. General education teachers and special education teachers bring a tremendous amount of knowledge and skills to the task of teaching, and by being paired together, they pool their expertise. Generally speaking, general education teachers have more in-depth knowledge about specific curricula or subject areas being taught. Special education teachers generally know more about modifying and "breaking down" curriculum and adapting teaching methodologies to meet the needs of individual children. When general and special education teachers instruct students and work together, they have more to offer ***all*** of the students. In addition, as teachers learn from each other, compromise, and resolve disagreements, students see adults doing exactly what they are being asked to do.

Evaluation and feedback. One of the benefits of co-teaching is that partners provide each other with evaluation and feedback. While one teacher teaches, the co-teacher can act as an audience, sensing when some students are floundering and in need of further instruction. Thus, "I'm finally getting the kind of moment-by-moment evaluation I can trust, not a written summary once or twice a year," reported one teacher at the working forum.

For teachers to reach the point where they welcome such constant evaluation and feedback, they need to have worked out many of the issues involved in teaching together. Teachers need to have discussed not just their overall philosophies of education and teaching, but also the "little things," such as whether or not students may chat about their assignments, sharpen pencils, and move around the classroom.

Absences. Another benefit of co-teaching is that when one teacher is absent, the class can still proceed with the co-teacher and a substitute, instead of remaining in a "holding pattern," as is often the case with the use of substitute teachers. Teachers did emphasize, however, that a substitute teacher is needed when a teaching partner is absent.

Continuity between grades. In one elementary school that has used co-teaching for five years, one of the co-teachers "is promoted" with the class at the end of the year. Therefore, each year the students have one familiar teacher and one new teacher, to help them begin the new term without a great deal of "getting acquainted" time. Although it is sometimes difficult for the teachers to break up partnerships after just one year, the continuity has proven very helpful to the students. Teachers who have co-taught then train other teachers in co-teaching methods.

Enhanced teaching methods. Having two teachers in the classroom makes some teaching methods more effective. For example, hands-on activities—proven to be among the most effective methods of teaching—are much easier to plan and carry out with two teachers in the room.

Cooperative learning groups are increasingly used in classrooms around the country and can be more successful with co-teaching. Cooperative learning groups can sometimes get "bogged down" when they are facilitated by only one teacher. When two teachers are circulating and helping the groups of students, much more teaching is accomplished.

Testing. Testing can be more flexible with co-teaching. For example, some co-teaching teams permit each student to decide whether to take written or oral tests, based on the student's preferred "learning style." While one teacher administers written tests in one area, the other administers the test orally in another area.

Discipline. Co-teaching is a tremendous help, as well, in managing discipline problems. If a student is misbehaving, one teacher can be devoted to that problem while the class continues uninterrupted.

The "space" barrier. One barrier to co-teaching that teachers repeatedly discussed at the working forum, although they were sometimes embarrassed about its "trivial" nature, was the issue of personal space. Teachers are accustomed to being the "rulers" of their rooms and are notorious for disliking any interference. Sharing rooms can be especially difficult. Some special education teachers referred to the welcome they initially received from their general teacher partner as, "This is my room and this is my desk. You may have the wastebasket." The fact is that teachers carefully organize their rooms to reflect their own teaching styles. Teachers have particular ideas about which activities should take place where, and which supplies belong where. To share that control is difficult.

For special education teachers, who are usually the ones asked to give up their classrooms and work in other teachers' classrooms, the territorial issue can be especially painful. Co-teaching "removed me from my own little room where I could do what I thought was best for my students," said one teacher, who said she initially had problems of "ownership."

"But, my students were doing well. I could see growth. I saw they were exposed to things they never would have been exposed to in my self-contained class," remarked this teacher. It was difficult for that teacher to communicate to her co-teacher the problems she had in sharing her authority and her environment, but she overcame those difficulties when she saw the benefits to the children involved.

The issue of territory extends even to the issue of desks. "I know it sounds trivial," said this same teacher, "but I needed a desk so that I could tell students when they're finished with their work that they should put it on 'my' desk." She acquired a small typing table that solved the problem.

If the issue of territoriality is addressed outright, it can usually be overcome, and the partnership can flourish. If ignored, it is likely to be a stumbling block.

One principal at the working forum suggested that the "personal space" of teachers should be removed from the learning space of the classroom altogether, in much the same way that college teachers have offices separate from the neutral territory of classrooms.

Teachers report that they can tell when the partnership is working when they stop referring to "my kids" and "your kids" but instead say, "our kids." They also agree that all teaching partnerships require collaboration, compromise, and extensive communication.

For more information about the Working Forum on Inclusive Schools, contact The Council for Exceptional Children at 800/CEC-READ.

From *Creating Schools for All Our Students: What 12 schools have to say*, a product of the Working Forum on Inclusive Schools; used with permission from The Council for Exceptional Children, Reston, VA.

Forum Suggests Ways, by Role Group, to Create More Inclusive Schools

What State and Local School Board Members and Central Administrators Can Do

1. Make sure funding follows the students, so schools can make placement decisions based on the needs of the student rather than the location of the money. That way, schools can hire the people and obtain the resources required to serve the child.
2. Provide time and money for continuing professional development of teachers, administrators, related services professionals, paraprofessionals, and support service workers. Let school staffs plan professional development, which should at least include the following:
   a. information on specific conditions and disabilities,
   b. specific information on how to manage discipline problems and encourage good behavior and a good attitude toward learning, and
   c. specific information on how to accommodate different learning styles and how to encourage learning in all children.
3. Provide incentive grants to schools to develop their own inclusive policies and practices.
4. Build in planning time for teachers, related services professionals, and paraprofessionals during the school year so they can plan—not only individually, but as grades and teams. Parapro-

fessionals need to be included in the planning process, and few school districts have addressed this issue.

5. When building new schools, make sure buildings are fully accessible to individuals with disabilities and can accommodate an inclusive program. Assess existing buildings for changes needed to make them fully accessible.
6. Use Individualized Education Programs (IEP's) as long-range planning tools with short-term strategies, so all students with disabilities graduate with as much confidence and ability to function in the world as possible. Consider the use of IEPs for all students.
7. Support the development of new assessment methods. Portfolios and curriculum-based assessments should play a larger role, standardized tests a smaller one.
8. When hiring new professionals, seek candidates with collaborative skills, knowledge of disabilities, and a desire to work in inclusive schools.
9. Permit principals and school-based teams to make decisions about scheduling, staffing, curriculum, and materials.
10. Remember that paraprofessionals are integral to the success of inclusive schools.
11. Make sure that paraprofessionals assigned to specific children with disabilities are not precluded from providing incidental benefits to other children.
12. Give foreign language credit for courses in sign language.
13. Remember that inclusive schools are not another way of saying placement in the "least ***expensive*** environment."
14. Maintain access to the ***full continuum of services and settings***. While inclusive schools serve the needs of many students, some children will need special education and related services in other environments.
15. Involve associations, unions, and other pertinent groups in the planning and implementation of inclusive school practices.

What Associations and Unions Can Do

1. Participate in districtwide and school-based planning.
2. Develop policies to support the development and implementation of effective inclusive schools.
3. Make certain that members have the appropriate working conditions and resources to assure good practice in an inclusive school.
4. Monitor the progress of inclusive schools and provide feedback to members, school officials, and the public.
5. Help schools obtain the resources necessary to run an effective inclusive school.
6. Counsel and assist members in developing new roles for themselves to maximize their value in an inclusive school.
7. Help model and create environments that facilitate collaborative working relationships among school personnel and parents.
8. Provide professional development that will help members work with students with disabilities, and research practices that will improve the delivery of quality instruction.

What Principals Can Do

1. Organize a team of parents and staff members, including yourself, to help plan inclusive school strategies and practices.
2. Make sure teachers, paraprofessionals, substitute teachers, related services personnel, other building support staff, and parents get the ongoing training and support they need.
3. Make sure teachers and paraprofessionals get the planning time they need.
4. Arrange visits for teachers and other staff to inclusive schools.
5. Explore co-teaching with your staff and ask for volunteers. Teachers who are forced into co-teaching may resent it and fail before they even start. Begin with one classroom where success is likely and work from there. Success will stimulate emulation.
6. Know the rights of students with disabilities, their families' rights, and the responsibilities of school personnel. Be sure that the inclusive school efforts are consistent with those rights and responsibilities.
7. Use the same report card for all students. If a child is being assessed by different criteria, this can be noted on the standard form.
8. Make sure parents are full partners in your school. Parents are children's first teachers and

commonly have an enormous store of knowledge about their children. They are often the key to creating a sense of community.

9. Have a clear, understandable policy on discipline so that every child and every adult in the school knows what is expected. This policy is especially important for children with behavioral and emotional problems and the adults who care for them.
10. Develop a school- or districtwide behavior management plan, because of the additional and often unpredictable nature of supports needed for students with emotional and behavioral difficulties.
11. Make sure that the focus is always on what each child needs. Some children may need to be away from the distractions of general classrooms for part or all of the day. Provide a variety of settings and options, as determined by student needs and staff.
12. Provide teachers with a list of resources, including the phone numbers of specialists inside and outside the school system.
13. Monitor and assess constantly. Begin with baseline data and gather information from a number of sources—including observations; test scores; and parent, student, and teacher surveys. Use evaluation information to inform and direct changes in inclusive school practices.
14. Engage the outside community to work in the school. Retirees and local businesses are resources that can be used to connect students with the outside world.
15. Remember that not everything will work. Be willing to fail, regroup, and try a different approach. Let your staff know that failure is something to be learned from, not something to be punished for.
16. Empower and support your staff. It takes all of your combined talent to be an inclusive school.

What Teachers Can Do

1. Be open to the possibility of including a student with disabilities in your classroom.
2. Seek the proper information, professional development, and support. If you are teaching a child with a disability, make sure you know about the child's limitations and potential and about available curriculum methodologies and technology to help the child learn. Insist that any needed services be provided and that the paraprofessional working in your room also get the proper training. If the school is resistant, and the district unresponsive, work with your teacher union or association to get the support you need.
3. Use a buddy system. Pair students with disabilities with children who can help. Occasionally permit students without disabilities to accompany their buddies to pull-out programs to let them see what goes on. This reduces the sense of mystery and difference.
4. Use a variety of teaching strategies. Rely less on "lecture, question, discussion" and more on hands-on activities, peer tutoring, cooperative learning, and individualized instruction.
5. With co-teaching:
   - Co-teaching relationships should be voluntary. Choose someone you respect and can work well with. As with any other partnership, you need to work hard to make it succeed.
   - Plan on spending time discussing all the decisions that need to be made in a classroom, from the big philosophical issues to the small ones, such as when students may sharpen their pencils and talk about their assignments. Discuss the territorial issues of where things belong, what activities should take place where, and who controls what desk.
   - Remember the advice of one co-teacher—"If the marriage isn't working, get a divorce." (But you might want to try counseling first!)

What Paraprofessionals Can Do

1. Learn as much as possible about the strengths of the children assigned to you.

Worth Quoting

"One primary flaw in the current continuum of alternative placements is that movement between placements is usually a bureaucratic nightmare. Decisions should be made carefully, but when a placement does not work as well as anticipated, changes in placement decisions should be swift. It is unconscionable for a student to languish in an inappropriate placement because of bureaucratic hassles. . . . The availability of an option for inclusion on a partial or trial basis would encourage students, parents, and educators to choose inclusion more readily." (Cecil D. Mercer and Holly Lane, "Principles of Responsible Inclusion," *LDA Newsbriefs*, Vol. 29, No. 4, July/Aug 1994)

2. Work with all the children; don't concentrate only on the children with disabilities.
3. Seek the proper training and support you need to manage behavioral problems, encourage success, and accommodate different learning styles.

What Support Service Staff Can Do

1. Make schools welcoming places for all students. School secretaries, food service workers, maintenance workers, and bus drivers all help make schools welcoming, comfortable places or forbidding, punishing places.
2. Learn about the students and what to expect of them.
3. Be an active member of the school community.

What Related Services Staff Can Do

1. Work in classrooms more and in separate environments less.
2. "Role release" by training teachers and paraprofessionals how to do some of the more routine aspects of your job. Psychologists can work with teachers in identifying different learning styles and modifying the curriculum to accommodate them.
3. Be collaborative. Serve on problem-solving teams and be involved in other planning efforts.
4. Be an active part of the school community.

What Parents Can Do

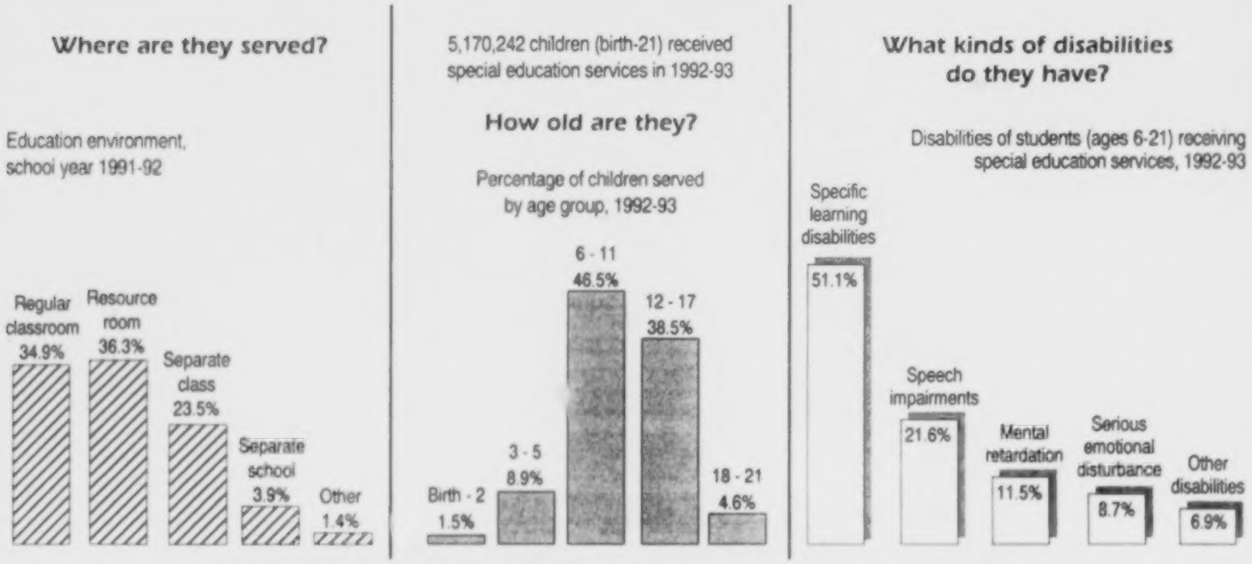
1. Know your child. You are your child's first teacher and often know better about his or her capabilities than anyone else. Communicate your hopes and plans to your child's teacher.
2. Actively participate in your child's school. Treat all students and other members of the school community with respect.
3. If your child has a disability, explain it to the teacher and discuss what services you think your child needs. Monitor the classroom carefully to see if your child is learning as much as he or she is able.
4. Be a team player. Everyone working together will create a better school.

What Colleges and Universities Can Do

1. In setting admissions standards, agree to look at student portfolios, rather than only SAT scores and grades.
2. Offer teacher training programs that equip future teachers with the skills to modify curricula and use a variety of teaching strategies to instruct all students. Also, provide student teaching opportunities in inclusive schools.
3. Give foreign language credit for sign language.

Reprinted with permission from *Creating Schools for All Our Students: What 12 schools have to say.* Copyright ©1994 by The Council for Exceptional Children, Reston, VA.

Special-Needs Students



U.S. Department of Education, Office of Special Education Programs, 16th Annual Report to Congress, 1994

BEST COPY AVAILABLE

Policies and Position Statements on Inclusive Schools

National Association of State Boards of Education

Resolution 94-6: Equal Educational Opportunity
B. Students with Special Needs

1. To ensure equal educational opportunities, services should be provided for special student needs. Learning programs should identify and address the individual needs and learning styles of all students, including those who are disabled, disadvantaged, migrant, gifted or talented, parenting or pregnant, minority, or of limited English proficiency.

2. State boards should ensure that policies are developed and implemented which guarantee that all students are educated in school environments that include rather than exclude them.... Inclusion means that all children must be educated in supported, heterogeneous, age-appropriate, natural, child-focused school environments for the purpose of preparing them for full participation in our diverse and integrated society.

(National Association of State Boards of Education, 1994. Resolution 94-6: Equal Educational Opportunity)

National School Boards Association (NSBA) Inclusion Issues

At the local level, we see increasing efforts to include students with disabilities in the general curriculum. These efforts are likely to continue. **But greater inclusion does not require any changes in federal law.** IDEA already requires that students be educated in the "least restrictive environment" and any changes in the law are likely to produce significant disruption at the local level and unnecessary and costly new litigation.

Inclusion can work effectively for large numbers of students with disabilities while enriching the classroom experience of all students. But for inclusion to work effectively frequently requires extensive teacher training, additional classroom aides, and in some cases, the purchase of expensive additional classroom technology.

To promote greater inclusion without providing the resources to make it work offers a false promise of improved opportunities for students with disabilities, and the real possibility of disruptions in the learning environment. The federal government needs to make the resources available to local school districts so more inclusive special education programming, where appropriate, can be highly successful.

Likewise, we must understand that full inclusion is not appropriate for some students with disabilities. For students with disabilities who require extensive individualized assistance or who do not have sufficiently well developed social skills, instruction in the general curriculum may not be beneficial. Many teachers and disability advocates share our belief that full inclusion is not always an educationally sound strategy.

(Testimony of Boyd Boehlje, President, National School Boards Association, before the House Subcommittee on Select Education and Civil Rights, July 19, 1994)

National Association of Elementary School Principals (NAESP) Platform 94-95

Equal Education Opportunity

NAESP supports efforts that promote the right of every child to an equal education opportunity regardless of ethnicity, handicap, race, religious belief, sex, or socioeconomic status. ('82, '92)

Student Disabilities

NAESP urges school systems to provide educational programs that will permit all children to develop their abilities and aptitudes to the fullest extent possible.

The Association endorses and supports the concepts embodied in the Individuals with Disabilities Education Act and Section 504 of the Rehabilitation Act of 1973, with emphasis in early identification beginning at birth, guaranteeing that all youngsters, irrespective of handicapping and/or health conditions, are entitled to a free appropriate education in the least restrictive environment.

NAESP supports inclusion of special education students, as appropriate, in regular classrooms with their peers in their neighborhood schools. To facilitate the successful inclusion of special education students, NAESP recognizes that appropriate financial resources, staff development, and support services must follow the child with disabilities.

The Association also recognizes that compliance with legal mandates presents additional managerial and administrative duties that impede the orderly and efficient delivery of educational services to all students.

NAESP supports continuation and expansion of related services to local districts by appropriate state and community service agencies. Additional state and federal financial support is imperative for local school districts to comply with the provisions of these laws. ('76, '77, '79, '90, '91, '93, '94)

(National Association of Elementary School Principals Platform 94-95)

National Education Association (NEA) Policy Statement on Appropriate Inclusion

The National Education Association supports and encourages appropriate inclusion. Appropriate inclusion is characterized by practices and programs that provide for the following on a sustained basis. Inclusion practices and programs that lack these fundamental characteristics must end.

NEA policy cites the following items as essential to any inclusion program:

- A full continuum of placement options and services within each option. Placement and services must be determined for each student by a team that includes all stakeholders and must be specified in the Individualized Education Program (IEP).
- Appropriate professional development, as part of normal work activity, of all educators and support staff associated with such programs. Appropriate training must also be provided for administrators, parents, and other stakeholders.
- Adequate time, as part of the normal school day, to engage in coordinated and collaborative planning on behalf of all students.
- Class sizes that are responsive to student needs.
- Staff and technical assistance that is specifically appropriate to student and teacher needs.

(Adopted by delegates to NEA's Representative Assembly, July 1994)

American Federation of Teachers (AFT)

The AFT opposes . . . any movement or program that has the goal of placing all students with disabilities in general education classrooms regardless of the nature or severity of their disabilities, their ability to behave or function appropriately in the classroom, or the educational benefits they and their general education peers can derive; . . . The AFT denounces . . . placing too many students with disabilities in individual general classrooms; placing students with disabilities in general education classrooms without services, professional development, or paraprofessional assistance; refusing to assist teachers who are having problems meeting the unique needs of students with disabilities; and changing IEPs en masse so that students with disabilities may be placed in general education classrooms without supports and services and irrespective of the appropriateness of the placement; . . .

Worth Quoting

"Recently I heard someone talk about a 'tolerance theory' of inclusion. The implications were that some regular teachers have a greater tolerance range than others toward accepting students with disabilities in their classroom. This no doubt is true. However, the education of students with disabilities is too important to be left to teachers' choices of whom they will or will not accept in their classes. Needing assistance, training, materials, and guidance is understandable; arbitrary refusal to accept students with disabilities is not." (Thomas P. Lombardi, *Responsible Inclusion of Students with Disabilities*, PDK Fastback 373, 1994)

The AFT . . . support[s] the continuum of alternative placements and the educational placement of students with disabilities within the least restrictive environment appropriate. . . .

The AFT seeks . . . to address the problem of the high percentages of minority students in special education. . . .

(AFT Resolution adopted at 1994 National Convention)

The Council for Exceptional Children (CEC) Policy on Inclusive Schools and Community Settings

The Council for Exceptional Children believes all children, youth, and young adults with disabilities are entitled to a free and appropriate education and/or services that lead to an adult life characterized by satisfying relations with others, independent living, productive engagement in the community, and participation in society at large. To achieve such outcomes, there must exist for all children, youth, and young adults a rich variety of early intervention, educational, and vocational program options and experiences. Access to these programs and experiences should be based on individual educational needs and desired outcomes. Furthermore, students and their families or guardians, as members of the planning team, may recommend the placement, curriculum option, and the exit document to be pursued.

CEC believes that a continuum of services must be available for all children, youth, and young adults. CEC also believes that . . . children, youth, and young adults with disabilities should be served whenever possible in general education classrooms in inclusive neighborhood schools and community settings. Such settings should be strengthened and supported by an infusion of specially trained personnel and other appropriate supportive practices according to the individual needs of the child.

(*CEC Policies for Delivery of Services to Exceptional Children.* Adopted by the Delegate Assembly of The Council for Exceptional Children in April 1993)

Children and Adults With Attention Deficit Disorders (CH.A.D.D.)

. . . . We believe that the concept of inclusion should reflect society's commitment that every child be educated in the environment that is most appropriate to that child's identified needs. CH.A.D.D. supports inclusion defined as education which provides access to appropriate support and remedia-

(continued on page 28)

Number of Children Age 6–21 Served Under IDEA, Part B, by Disability

	State	All Disabilities	Specific Learning Disabilities	Speech of language Impairments	Mental Retardation	Serious Emotional Disturbance	Multiple Disabilities	Hearing Impairments	Orthopedic Impairments	Other Health Impaired	Visual Impairments	Autism	Deaf-Blindness	Traumatic Brain Injury
KENTUCKY	1991-92	66,789	23,417	20,840	17,028	3,142	846	485	389	301	332	0	9	0
	1992-93	66,671	23,335	20,070	17,148	3,257	947	481	387	347	324	38	4	33
	1993-94	66,826	22,927	18,348	8,106	3,957	1,159	793	399	506	481	75	4	71
TENNESSEE	1991-92	102,987	53,989	23,754	12,175	2,363	1,465	1,010	1,070	1,865	760	285	12	65
	1992-93	103,311	56,468	24,411	12,279	2,590	1,602	1,058	1,030	2,736	735	304	9	89
	1993-94	113,928	56,872	24,396	3,019	2,839	1,615	1,111	1,102	3,974	765	371	12	115
VIRGINIA	1991-92	105,469	55,379	23,868	12,344	9,067	1,823	1,057	766	570	95	490	2	5
	1992-93	112,794	59,844	24,741	12,415	9,902	2,404	1,045	727	1,071	57	539	4	45
	1993-94	116,382	60,633	24,994	13,040	10,596	2,840	1,054	750	1,734	41	620	1	80
WEST VIRGINIA	1991-92	39,483	18,593	10,554	7,446	2,091	0	279	284	14	137	75	1	9
	1992-93	40,057	18,762	10,990	7,293	2,101	0	294	266	90	130	101	0	30
	1993-94	38,730	17,914	10,618	7,154	1,956	0	273	237	223	152	148	1	54

Ed Note: Thanks to Soleil Gregg of the AEL staff for the arduous task of compiling the data tables displayed in Around the Region.

BEST COPY AVAILABLE

Placement of Children Receiving Special Education Under IDEA Ages 6–21 (Least Restrictive Environment)

	State	Regular Class	Resource Room	Separate Class	Public Separate Facility	Private Separate Facility	Public Residential Facility	Private Residential Facility	Homebound Hospital
KENTUCKY	1991-92	24,483	30,365	9,306	725	7	66	77	273
	1992-93	26,985	29,808	8,634	749	42	8	25	420
	1993-94	28,399	27,871	9,149	422	58	634	15	275
TENNESSEE	1991-92	48,748	29,064	18,913	918	556	20	17	1,153
	1992-93	50,303	31,901	19,265	784	623	19	20	1,145
	1993-94	57,288	28,778	17,222	764	686	47	32	1,133
VIRGINIA	1991-92	40,507	33,494	28,683	967	695	566	416	136
	1992-93	42,959	36,473	29,349	1,023	763	503	421	163
	1993-94	44,152	39,520	29,837	930	814	511	391	225
WEST VIRGINIA	1991-92	2,490	27,875	8,749	235	8	51	22	2
	1992-93	2,680	27,745	8,609	801	108	22	20	147
	1993-94	3,148	25,468	7,173	146	10	18	4	93

Number of Special Education Teachers Employed and Needed to Serve Children with Disabilities Ages 6-21

	Kentucky			Tennessee			Virginia			West Virginia		
	1991-92	1992-93	1993-94	1991-92	1992-93	1993-94	1991-92	1992-93	1993-94	1991-92	1992-93	1993-94
Employed	4,404	4,593	*NA (similar to 92-93)	4,794	4,754	4,081	8,477	9,332	8,657	3,228	2,838	*NA
Needed	431	228	*NA (similar to 92-93)	213	144	78	785	1,001	60	247	*NA	*NA

*Not available

Sources (for Around the Region):

- U. S. Department of Education. (1994). *To assure the free appropriate public education of all children with disabilities: Sixteenth annual report to Congress on the implementation of the Individuals with Disabilities Education Act.* Washington, DC: Author.
- Kentucky Department of Education, Division of Exceptional Children Services
- Tennessee Department of Education, Division of Special Education
- Virginia Department of Education, Office of Special Education Services
- West Virginia Department of Education , Office of Special Education Programs and Assurances

Results of Inclusion Survey to be Produced on Audiotape

AEL's School Governance and Administration program is conducting a regional survey on the implementation of inclusion at the secondary school level. State-level officials and professional association staff in each of AEL's four states—Kentucky, Tennessee, Virginia, and West Virginia—were asked to identify exemplary secondary schools. AEL staff is now conducting structured telephone interviews with principals and special educators at these schools. They are asked to describe courses special needs students are taking; schedules of students and special educators; collaboration of special and regular educators; and any existing arrangements for joint planning time, training, and other support services. A special effort is being made to compare rural and nonrural inclusion arrangements. The results of the interviews will be reported on an audiotape titled "Voices from the Field: Secondary School Inclusion in the AEL Region." Watch for announcements in future issues of *The Link*.

Two AEL Projects Aim to Identify Effective Inclusion Strategies

The passage of federal legislation, as well as recent court decisions, is causing both special and regular educators to carefully re-examine their programs and services for special-needs children. Several states, including the four in AEL's Region, are responding to federal mandates by establishing policies, regulations, or recommendations to encourage voluntary inclusion practices by schools. To help the Region's educators as they move toward more inclusive schooling, AEL's Classroom Instruction program is sponsoring two activities: (1) a study group of Virginia teachers is looking at effective inclusive practices and (2) groups of teachers with inclusion experience are participating in focus group interviews in all four AEL states.

The Virginia teachers are working with AEL, the Virginia Education Association, and the College of William and Mary to investigate teacher concerns and solutions related to inclusion. The study group is comprised of seven pairs of co-teachers—regular and special educators—who plan, consult about students, and teach together. The teachers' work is organized around seven themes that emerged from early data: (1) teachers—relationships; (2) teachers—instruction; (3) students; (4) families/community; (5) laws/regulations/procedures; (6) classroom management, scheduling, and planning time; and (7) administrators. Each study group member collected colleagues' questions and concerns related to each theme and responded in reflective writing sessions to concerns raised most frequently. Each of the seven pairs worked as partners to analyze and summarize responses; the entire study group is collectively editing the resulting summaries.

The second activity began by inviting more than 230 educators—regular and special education teachers with at least one year of experience with inclusion—to participate in small, focus group interviews across the Region. A total of 143 educators from 47 school districts participated in one of 16 small-group discussions. Early analysis of the data shows that the most frequently mentioned concerns are in the following areas:

- time for collaborative planning and teaching,
- sharing responsibilities between special and regular educators,
- scheduling of students and teachers,
- funding, and
- identification of students for services.

Strategies most often mentioned by the groups as effective in inclusive classrooms include cooperative learning, peer tutoring, classroom discussion of individual differences, lesson and testing modifications, pair or team teaching (co-teaching), and grading alternatives.

AEL plans to publish the final results of both projects in early fall 1995. Watch for announcements in future issues of *The Link*. For more information about either of these activities, contact AEL's Classroom Instruction program.

FREE RESOURCE

Far West Laboratory recently produced Policy Update #4, "Special Education: At a Crossroads," on the topic of inclusion. It is available at no charge from Far West Laboratory, 730 Harrison St., San Francisco, CA 94107; 415/565-3000 (reference order # POPU04).

(*continued from page 24*)

tion at every level to facilitate each child's ability to participate and achieve. The environment in which these services can best be delivered depends on the needs of the individual student. Many children with disabilities are educated successfully in regular classrooms with appropriate accommodations and supports. However, others require alternative environments to optimize their achievement. CH.A.D.D. supports this continuum of services and placements. . . .

(*The CH.A.D.D.ER Box*, Vol. 6, No. 4, June 1993)

Learning Disabilities Association of America (LDA)

[LDA] does not support "full inclusion"* or any policies that mandate the same placement, instruction, or treatment for ***all*** students with learning disabilities. Many students with learning disabilities benefit from being served in the regular education classroom. However, the regular education classroom is not the appropriate placement for a number of students with learning disabilities who may need alternative instructional environments, teaching strategies, and/or materials that cannot or will not be provided within the context of a regular classroom placement.

LDA believes that decisions regarding educational placement of students with disabilities must be based on the needs of each individual student rather than administrative convenience or budgetary considerations and must be the results of a cooperative effort involving the educators, parents, and the student when appropriate.

LDA strongly supports the IDEA . . . [and] believes that the placement of ***all*** children with disabilities in the regular classroom is as great a violation of IDEA as is the placement of ***all*** children in separate classrooms on the basis of their type of disability.

(LDA, *Position paper on full inclusion of all students with learning disabilities in the regular education classroom*, January 1993)

---

*LDA defines full inclusion as the "practice in which all students with disabilities, regardless of the nature or severity of the disability and need for related services, receive their total education within the regular education classroom in their home school."

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325

Address Correction Requested

Telephone:
304/347-0400
800/624-9120 (toll free)
304/347-0487 (FAX)

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board:
Pat Cahape
Soleil Gregg
Kim Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Wohl

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a master on white paper.

Nonprofit
Organization
U.S. Postage Paid
Permit No. 2560
Charleston
West Virginia
25301

The Appalachia Educational Laboratory, Inc., is a private, nonprofit corporation. AEL works with educators in ongoing R & D-based efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia and operates the Eisenhower Math/Science Consortium for these same four states. It also operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement, U.S. Department of Education. This publication is produced with funds from OERI contract number RP91002002. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the education communities of research and practice

Volume 14, No. 2 • Fall 1995

AEL
more than
25 YEARS
OF SERVICE
To Educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

ADHD: Instructional Strategies That Work

by James C. McCrory and Soleil Gregg

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurobiologically based disorder characterized by inappropriate levels of three observable behaviors: inattention, impulsivity, and hyperactivity (Fowler, 1992). Barkley (1994), however, believes that these behaviors may result from a deeper, underlying problem—the inability to inhibit or control behavior and to delay a response to a stimulus. The inability to delay a response affects executive brain functions* critical to developing self-control and directing behavior toward future goals.

ADHD can interfere with academic performance to the extent that affected children may qualify for services and accommodations under three federal statutes (Latham & Latham, 1992). Zentall (as cited in Gregg, in press) describes how inattention, impulsivity, and hyperactivity affect classroom performance. She reports that children with ADHD pay attention to what is novel and stimulating and may have trouble focusing on important information rather than on extraneous detail or background noise. They may be unable to sustain attention, especially during repetitious, rote, or prolonged tasks, or in situations of decreasing novelty. Hyperactivity—motor and verbal—may cause off-task behavior or be seen as misbehavior if children are expected to sit quietly. Finally, impulsivity may cause difficulty in any task requiring a delayed response: raising hands to answer questions, reading or listening to directions, asking questions to clarify information, planning, and organizing. In addition, Barkley (1994)describes how deficiencies in executive brain functions can affect motivation, analysis, goal-setting, and problem-solving and cause poor academic performance.

For teachers seeking ways to improve the achievement of children with ADHD, the re-

[continued on page 2]

---

*Executive functions are the metacognitive processes used to think through and direct the performance of a task (Bender, 1995).

In this issue:

RESEARCH NOTES

Educators and Others Answer Questions Teachers Ask Most About Hands-on Science Teaching, p. 4

Principals-in-Training Learn Time-Management, Priority-Setting Skills, p. 4

Low-Income Students' Education Not Necessarily Limited by Social Circumstances, p. 5

Collaboration Between K-12 and Higher Education Agencies Essential to Systemic Reform, p. 5

Training Guide Offers Support for Creating and Implementing Authentic Assessment in School, p. 6

Four Conditions Can Help Make Curriculum Integration Easier, p. 6

Programs and Policies Offer Ways to Prevent Student Violence, p. 7

NOTEWORTHY

Condition of American Education Revealed in Annual Report, p. 7

Reports Look at State Financing for Education and Other Children's Services, p. 8

Teacher Forum and Teleconference, p. 9

INSIDE AEL

The Quarterly Sampler—Some of the Best From ERIC/CRESS, p. 10

Making REAL Change Happen in Schools—a Conference, p. 12

Condition of American Education—p. 7

KC021117

search base is sparse (Fiore, Becker, & Nero, 1993), yet growing. The following chart displays classroom practices—matched to specific ADHD characteristics—that have been shown to be effective when used with ADHD students.

ADHD Characteristic	Classroom Practice
Attention Many children with ADHD have problems with selective and sustained attention (Barkley, 1988). They experience difficulty focusing on critical stimuli, or those essential to the task, while ignoring unessential stimuli.	**Overhead Projection.** Use transparencies and an overhead projector, "frame" key information with a cut-out rectangle. **Color.** Add color to highlight salient information—only after the material has been introduced. Use colored paper, ink, and pencils with routine assignments and repetitive tasks. **Novelty.** Hook students with unusual approaches: a pillow case for introducing "mystery" items; a flashlight to "spotlight" items on the board; period clothing or hats. Change pace of lesson; gesture; vary volume (project loudly or whisper), and ask interesting, speculative questions. **Background music.** Play low-volume background music or nature tapes (rain or ocean sounds). Instrumental Baroque music (e.g., Bach) may increase math scores. **Cueing.** Make eye contact, touch lower shoulder to get eye contact, use physical proximity. **Using the senses.** Use hands-on learning involving all of the senses. Offer variety of visual, auditory, and tactile inputs (hearing—rhythm, melody, song, or rap; sight—pictures, charts, calculator; touch—multilink cubes and base ten blocks.
Impulsivity/ Delaying Response The child with ADHD, due to neurobiological differences, has an impaired ability to inhibit, control, and direct behavior in response to classroom demands (Barkley, 1994). Typically, children with ADHD react quickly to an event or task without thinking it through (Zentall, 1993). This impulsivity leads to rapid, inaccurate responding in classroom situations. The ability to delay a response depends on an executive function of the brain, prolongation (Christie, 1995). The brain can hold (prolong) a thought similar to the way the pause button on the VCR stops the play mode and holds an image. The child with ADHD has a dysfunctional pause button. Opportunities for active responding benefit children who are unable to inhibit impulses. Active response can also improve sustained auditory attention (Zentall & Meyer, as cited in Fiore et al, 1993). Several classroom practices encourage the delay needed for thoughtful student response. (Rief, 1993, 1994)	**Unison response/point-tap.** Instruct your class, "When I point to a word, think about it. When I tap the word, say it aloud." "When I point to a problem, think of the answer. When I tap it, say the answer." Point, think; tap, say. **Unison response/signaling.** Hold up your arm while asking a question, wait a few seconds, then have class respond in unison when your arm goes down; whole class answers yes/no by pointing thumbs up for yes, thumbs down for no; holding up a green card for yes, a red card for no; opening their 'ands for yes, closing them for no. **Individual chalk boards.** Students respond on individual chalk boards or dry-erase boards, first sharing response with neighbor, then holding boards up in unison on signal from teacher. **Cooperative learning, peer tutoring.** Use cooperative groups or peer tutoring—pairing students for drill and practice. **Incentives/rewards.** Use simple, immediate rewards for task completion: free time, computer game, something tangible (stickers or special pencils), or special certificates.

ADHD Characteristic	Classroom Practice
Hyperactivity Children with ADHD may have unusually high activity levels. They often fidget, squirm in their seats, get out of their seats, talk excessively, and seem constantly "on the go" or "driven by a motor" (APA, 1994).	**Allow movement.** Redirect problematic activity or introduce an alternative behavior (e.g., "Fred, squeeze this nerf ball rather than tap your pencil on the desk." "Sarah, work at the standing desk instead of hopping from one knee to the other at your seat." "Carter, please walk to the office to deliver the lunch count for me.")
Other Executive Functions The executive functioning of the brain allows individuals to organize a series of events over a long period of time so as to change the probability of a distal consequence (Christie, 1995). Due to impairments in executive function, children with ADHD have a diminished capacity to plan ahead. As a result, they need help in the classroom to organize behavior over time, directing behavior away from the present and toward the future (Barkley, 1994; Rief, 1994).	**Structure.** Explicitly communicate expectations; directions, rules, and consequences must be clear; post rules where they can be seen; review and rehearse rules and directions immediately prior to situations where they must be used. **Transitions.** Prepare students for transitions: give five-minute warnings; review and rehearse transition behavior; signal transitions with a flick of the lights, a bell, or a piano chord; reinforce positive behavior with simple rewards and privileges. **Organization.** Have students use three-ring notebooks (Grades 3-12) with pencil pouch, monthly assignment calendar, front and back pockets for work to be taken home and work to be signed and returned to school. Use folder with two pockets instead of a notebook for Grades K-2. Parents see folder or notebook daily, sign homework assignments, and sign notices from teacher or school.

References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Barkley, R. (1988). Attention. In M.G. Tramontana & S.R. Hooper, (Eds.), *Assessment issues in child neuropsychology* (pp. 145-171). New York: Plenum Press.

Barkley, R. (1994). It's not just an attention disorder. *Attention, 1*(2), 22-27.

Bender, W. (1995). *Learning disabilities: Characteristics, identification, and teaching strategies.* Boston: Allyn and Bacon.

Christie, Leo. (1995, March 9). Seminar: *Attention deficits in children and adults.* Richmond, VA: Professional Development Resources, Inc.

DuPaul,G., Bankert,C., & Ervin,R. (1994). Classwide peer tutoring: A school-based academic intervention for ADHD. *ADHD Report, 2*(4), pp. 4-5.

Fiore, T., Becker, E., & Nero, R. (1993). *Research synthesis on education interventions for students with attention deficit disorder.* Washington, DC: United States Department of Education.

Fowler, M. (1992). *CH.A.D.D. educator's manual.* Plantation, FL: Children and Adults with Attention Deficit Disorders (CH.A.D.D.).

Gregg, S. (in press). *Policy Brief: ADHD—Building Academic Success.* Charleston, WV: Appalachia Educational Laboratory.

Latham, P. & Latham, P. (1992). *Attention deficit disorder and the law.* Washington, DC: JKL Communications.

Reeve, R. (1994). The academic impact of ADD. *Attention, 1*(1), pp. 8-12.

Research findings. (1995). *ADHD Report, 3* (3), p. 15

Rief, S. (1993). *How to reach and teach ADD/ADHD children.* New York: The Center of Applied Research in Education.

Rief, S. (1994). *ADHD: Inclusive instruction and collaborative practices* (video).

Walker, R. (1994). Presentation made at the annual conference of the Council for Learning Disabilities, San Diego, CA, November 10-12.

Zentall, S. (1993). Research on the educational implications of attention deficit hyperactivity disorder. *Exceptional Children, 60* (2), pp. 143-153.

James McCrory is Associate Professor and Director of Teacher Education at Mary Baldwin College. Soleil Gregg of the AEL staff has researched and written a series of Policy Briefs on the topic of Attention-Deficit/Hyperactivity Disorder (ADHD).

This article has been condensed for publication in **The Link**. Copies of the article with full text are available at no charge from AEL.

RESEARCH NOTES

Educators and Others Answer Questions Teachers Ask Most About Hands-on Science Teaching

Research shows that hands-on science teaching works. Yet many teachers have questions about it and are, therefore, reluctant to use it in their classrooms. A publication from the ERIC Clearinghouse for Science, Mathematics, and Environmental Education might make the difference.

Authors David Haury and Peter Rillero collected responses from teachers, curriculum developers, and scholars to ten of the most frequently asked questions about hands-on science teaching, such as: *What is hands-on learning, and is it just a fad? How is hands-on learning evaluated? Where do I find resources to develop hands-on activities?* Each question includes teachers' responses, developers' thoughts, notes from the literature, and a short summary.

"Hands-on science can be expensive. How do I get materials and equipment?" One scholar recommends bait shops as an inexpensive source of living vertebrates that can be used for classroom activities. Saundra Elsea, a sixth-grade science and health teacher, suggests finding materials around the house or at a local hardware store. She uses nuts and bolts to make sets of gram weights and empty jelly jars as beakers.

Responding to a question about the benefits of hands-on learning, elementary school teacher Jeff Brodie says, "The single most important benefit to me is that although it requires a great deal of preparation time, once a system is developed, hands-on teaching makes teaching fun. If the kids are learning and having fun doing it, then I am having fun at my job, and I am a happier person overall."

The publication also contains an annotated bibliography of curriculum guides, supplementary materials, program frameworks, and planning resources that support hands-on science teaching. Each entry includes the resource's grade level, science content, and contact information.

Ordering information: *Perspectives of Hands-On Science Teaching* is available from the ERIC Clearinghouse for Science, Mathematics, and Environmental Education, The Ohio State University, 1929 Kenny Rd., Columbus, OH 43210-1080 (cite order no. 5105, 142 pages, $12.90 prepaid, plus $3.50 shipping and handling).

Principals-in-Training Learn Time-Management, Priority-Setting Skills

Imagine the time pressures on principals. They are constantly on the run, moving from meeting to meeting, writing memos, and making quick decisions on urgent matters. How do they manage their time to ensure everything gets done?

A curriculum by Edwin M. Bridges of Stanford University helps principals-in-training learn how to manage their time and set priorities. The curriculum is one of three problem-based learning modules published by the ERIC Clearinghouse on Educational Management. The modules help future principals understand the problems, frustrations, and challenges of the job and develop visions for their schools.

Bridges' curriculum has future principals pretend to be the principal of a diverse junior high school. In this role, they must respond to memos and phone messages, meet with parents, take phone calls, and observe a class by videotape—all within two hours.

Principals-in-training have to deal with a teacher resigning because he has AIDS, a parent who wants her daughter to be transferred out of an inept teacher's class, and students who are chronically late to school.

They also have to deal with a superintendent's wanting to start school earlier; a group that wants the school to stop using a textbook it says is violent, graphic, and encourages Satanism; and parents concerned with test scores.

For each item, future principals must do one of the following: (1) write a response; (2) decide they need more information, specify why they need it, and determine how and where to get it; (3) hold a meeting, plan the agenda, and identify what the meeting ought to accomplish; (4) form a committee, choose members, and outline their tasks; (5) delay a decision and defend the delay; (6) ignore the problem, and write why; (7) deal with several things simultaneously; or (8) do something else that seems appropriate.

Ordering information: *Time Management Work of the Principal* is available from the ERIC Clearinghouse on Educational Management, 5207 University of Oregon, 1787 Agate St., Eugene, OR 97403-5207 (163 pages, $15 for instructor edition, $14 for student edition, plus $3 handling, prepaid; make check or money order payable to University of Oregon/ERIC).

Low-Income Students' Education Not Necessarily Limited by Social Circumstances

Low-income students are not necessarily trapped by their social circumstances. In fact, under certain conditions, their social environments can be rearranged to facilitate educational opportunities, according to a study of the San Diego school district's Achievement Via Individual Determination (AVID) program.

AVID is an "untracking" program that places low-achieving students—primarily from low-income and ethnic or language minority backgrounds—in the same college preparatory academic programs as high-achieving students. Untracking differs from detracking in that it moves students from general or vocational tracks to college preparatory tracks, while detracking eliminates tracking entirely.

Between 1990 and 1992, 48 percent of AVID students successfully enrolled in four-year colleges—10 percent more than the regional or national average for their backgrounds. AVID's success lies in instructors' support of student learning and their role as mediators between the high school, college, and the student, say researchers from the National Center for Research on Cultural Diversity and Second Language Learning.

AVID instructors teach note-taking, test-taking, and studying strategies, as well as assist students in all phases of the college application process. One instructor even drives to local colleges to obtain fee-waiver applications for his students. Further, to show his students that money need not limit their college opportunities, he supplies information on more than 175 scholarships to them.

AVID "teaches explicitly in school that which middle-income students learn implicitly at home," according to the authors—Hugh Mehan, Lea Hubbard, Angela Lintz, and Irene Villanueva of the University of California, San Diego. The program provides a broad support network for students who traditionally lack that support.

Ordering information: *Tracking Untracking: The Consequences of Placing Low Track Students in High Track Classes* is available from the National Center for Research on Cultural Diversity and Second Language Learning, 1118 22nd St., NW, Washington, DC 20037 (cite research report no. 10, 21 pages, $4.00 prepaid).

Collaboration Between K-12 and Higher Education Agencies Essential to Systemic Reform

Collaboration is never easy, but collaboration between state and higher education agencies is essential for successful school reform, argue authors Esther Rodriguez of the State Higher Education Executive Officers and Nancy Pulford of the North Central Regional Educational Laboratory (NCREL).

Rodriguez and Pulford point out that many long-established barriers prevent collaboration between K-12 and higher education agencies. They compete for scarce public resources; they have separate histories and missions; data on student progress is collected separately, inhibiting collaborative policy planning; and they are funded differently.

Efforts at systemic reform are attempting to break down these barriers, and both state and federal laws provide initiatives that encourage collaboration. However, the authors contend that some of the most successful collaborations between K-12 and higher education occur when agencies work together voluntarily rather than when compelled to do so by law.

This policy brief, published by NCREL, features collaboration issues, plus promising state collaboration efforts in Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin.

The report also addresses the key issues involved in K-12 and higher education collaboration:

- defining high standards and designing outcomes-based assessment,
- building capacity to support high standards, and
- coordinating K-12 and higher education systems to support student achievement.

Ordering information: *Policy Briefs: Building Collaborative Education Systems: New Roles for State Education and Higher Education Agencies* is available from the North Central Regional Educational Laboratory, Publications Department, 1900 Spring Road, Suite 300, Oak Brook, IL 60521-1480 (cite order no. PB-1-94, 31 pages, free while supplies last).

Training Guide Offers Support for Creating and Implementing Authentic Assessment in School

A comprehensive trainer's manual from AEL provides in-depth information about authentic assessment that trainers can use to teach others how to create and implement authentic assessments that fit their own situations.

Authentic assessment, also known as alternative or performance assessment, includes such ways to measure student progress as writing portfolios, cooperative group projects, exhibitions, observations, personal communication, experiments, and performances. Unlike traditional testing methods, these techniques enable teachers to measure the higher-order skills and knowledge needed in the workplace and in the real world. At their core is students' ability to apply knowledge to solve real problems.

This manual provides trainer instructions and a variety of activities, transparencies, and handouts, as well as publicity material, background readings, a bibliography, and evaluation sheets for four different 3- to 4-hour workshops. The workshop modules are designed for optimal audiences of 12-25 participants drawn from educators of all levels and affiliations.

The first module deals with the basic questions: *Why authentic assessment? How is its purpose different from traditional testing methods?* Presenting a variety of performance assessment models, the second module gives educators a chance to critique both teacher-made and commercial examples of five types of authentic assessment.

The third module examines developing various scoring criteria for authentic assessments, finding ways to increase their reliability, and incorporating peer- and self-evaluation. For those who want an action plan, the fourth module focuses on implementation concerns and on building support for authentic assessment in the classroom.

Ordering information: *On Target with Authentic Assessment: Creating and Implementing Classroom Models* is available from AEL (cite order no. AL-1194-AR, 650 pages, $50 prepaid).

Four Conditions Can Help Make Curriculum Integration Easier

Educators can determine their readiness for curriculum integration by examining the extent to which four conditions are present in their school, says Rebecca Crawford Burns in a publication from AEL.

Integrated curriculum brings together academic disciplines in themes or topics. One condition for successfully implementing this approach is having a school culture in which students collaborate with each other and with teachers, and teachers collaborate with each other and with students. This means dissolving the boundaries between classrooms and teaching departments.

A second condition is that school faculty share common beliefs about teaching and learning. This is especially important when forming instructional teams. Teachers have often cited incompatible beliefs as being a major hindrance to interdisciplinary teamed instruction.

Supports for change are another condition. The school should be ready for change; parents, administrators, and colleagues should support teachers in their efforts and encourage them to take risks; school leaders should support and facilitate teachers' efforts; and the school should provide ongoing professional development.

Finally, the school should have facilitating structures in place. Schools should schedule common planning time, block schedule for teamed instruction, provide teachers with flexible instructional space, and budget adequately for resources and supports.

The publication describes a continuum of five stages of integration. A facilitator's guide includes activities, handouts, and overheads for helping school faculty decide whether and how to pursue curriculum integration.

Ordering information: *Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools* (with the facilitator's guide) is available from AEL (cite order no. AL-795-AR, 161 pages, $24.95 plus $4 shipping and handling, prepaid; additional copies of the book only are available for $10).

AEL and ERIC/CRESS Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Use this form to order materials from AEL, as well as from the ERIC Clearinghouse on Rural Education and Small Schools. Please check (✓) your selections, and complete the shipping information at the bottom of page 3. **Be sure to include payment for priced items.**

Vol. 14, No. 2 • Fall 1995

(fold here)

From: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage Required

DISTRIBUTION CENTER
AEL
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL (free unless priced)

ERIC Digests

ERIC Digests are produced by ERIC Clearinghouses on topics of current interest in education. Single copies re available from AEL's Resource Center. Readers are encouraged to photocopy these materials for dissemination to others in their school or agency.

___ *An Introduction to Internet Resources for K-12 Educators. Part I: Information Resources*, by Nancy A. Morgan, ERIC Clearinghouse on Information and Technology, 1994

Recently, Internet resources for the K-12 education community have been appearing all over the United States. This digest lists various information resources available to K-12 educators via the Internet. Topics covered include guides to Internet resources, lesson plans, keypals and penpals, acceptable use policies, technology plans for K-12 schools, Internet projects for the classroom, grant information, government information, state education departments, electronic books, reference resources, library catalogs, world wide web sites, and other resources.

___ *An Introduction to Internet Resources for K-12 Educators. Part II: Question Answering, Listservs, Discussion Groups*, by Nancy A. Morgan, ERIC Clearinghouse on Information and Technology, 1994

As K-12 schools connect to the Internet, a new means of communication opens up to educators and students. This digest describes some sample services and resources available to the K-12 community via electronic mail. Information sources covered in this digest are question-answering services and include AskERIC; listservs or electronic discussion groups; and Usenet newsgroups, an electronic bulletin board system.

___ *Urban Teachers and Collaborative School-Linked Services*, by Gary Burnett, ERIC Clearinghouse on Urban Education, 1994

This digest offers guidelines for developing partnerships between schools and outside service agencies and suggests roles teachers can play in the process. The successful provision of services depends not only on administrators, but also on others who have direct contact with students, including classroom teachers. School administrators bear the responsibility for finding appropriate service providers who are willing to become partners. Once the initial contact has been made, administrators must get information about the operations of service providers and elicit their active input to program planning. Defining needs and goals is essential to establishing the collaboration, and maintaining that collaboration is largely a result of the careful initial definition of goals and responsibilities. In the final analysis, teachers provide the force that makes school-linked programs work.

___ *Senior Citizens as School Volunteers: New Resources for the Future*, by Lois Lipson, ERIC Clearinghouse on Teaching and Teacher Education, 1994

School volunteers come from many sources and provide a wide range of services at both the elementary and secondary levels. Senior citizens have discovered that volunteering offers an avenue for exercising skills and talents gained through a lifetime of experience. In schools across the country, older adults are being brought into classrooms, to the mutual benefit of the schools and the seniors. This digest highlights the value and importance of involving senior citizens in a school volunteer program and provides strategies for program development and implementation. Successful intergenerational programs include: (1) a needs assessment, (2) job descriptions for volunteers, (3) recruitment techniques, (4) a screening interview, (5) orientation and training, (6) periodic recognition of volunteer efforts, and (7) evaluation of program goals and objectives. The digest also discusses transportation, lunches, liability insurance, and arranging required tuberculin (TB) skin tests for older volunteers. A list of five organizations and volunteer clearinghouses that can help locate suitable older volunteers is included.

___ *Student Motivation to Learn*, by Linda S. Lumsden, ERIC Clearinghouse on Educational Management, 1994

A growing body of evidence suggests that when students are intrinsically motivated, they tend to employ strategies that demand more effort and enable them to process information more deeply. Teachers can help motivate students to learn by maintaining a caring, supportive classroom climate. Tasks should be challenging but achievable and defined in terms of specific, short-term goals. School-level policies and practices should stress learning, task mastery, and effort rather than relative performance and competition. To help unmotivated students, a process called "attribution retraining" involves modeling, socialization, and practice exercises. Other potentially useful strategies include portraying effort as investment rather than risk and skill development as incremental and domain-specific, and focusing on mastery.

___ *Should Gifted Students Be Grade-Advanced?* by Sharon J. Lynch, Council for Exceptional Children, 1994

This digest describes types of education programs for gifted and talented children and considers educational acceleration for this population. It reviews such acceleration alternatives as having a child skip a grade, having a child take advanced courses with older students in particular subjects, and having the child tutored and advanced in given subjects either individually or in small groups. The digest considers whether acceleration is harmful academically, emotionally, or socially; what educators think of educational acceleration; how parents know if their child should accelerate; and steps in making the decision to accelerate. The digest provides a list of seven additional information sources.

___ *Blending Gifted Education and School Reform*, Council for Exceptional Children & ERIC Clearinghouse on Disabilities and Gifted Education, 1994

This digest provides a process for assuring that the unique needs of gifted students are addressed within the context of systemic education reform. Several key elements guide the process: creating belief statements, clarifying the issues, and designing strategies for implementation. Generating belief statements based on what is believed about all learners helps the district or school to create a set of expected outcomes that will affect the entire community. The next step calls for identifying important critical issues to help narrow the topics of concern and focus discussion. Designing implementation strategies involves the following five steps: analyze the language; list key decision makers, stakeholders, and risk takers; infuse gifted/talented into school policies; visualize the desired direction; and enact equitable access to resources. The digest lists reform strategies generated at a gifted leadership conference.

Supplement to **The LINK**—Vol. 14, No. 2

Fall 1995

Dialogue

❖

NEWS FROM AEL's COLLEGES & SCHOOLS PROGRAM

Virginia Wesleyan College Adopt-a-School Program

Contributors: Dr. Lin Logan and Ginger Ferris, Virginia Wesleyan College

An African proverb says that "it takes a whole village to raise a child." Virginia Wesleyan College (VWC) students are putting that proverb into practice as they extend their campus to two public schools in neighboring cities. Virginia Wesleyan is a private, liberal arts, undergraduate institution with approximately 1,300 students located in the Tidewater region of Virginia. The college has created partnerships with Newtown Road Elementary School in Virginia Beach and Oscar Smith High School in Chesapeake. These partnerships are designed to foster a sense of community, while enhancing academic advancement on all campuses.

Newtown Road Elementary School draws its student population from a variety of neighborhoods, but many of the students at Newtown can be considered at risk. Three major adopt-a-school programs at Newtown Elementary are coordinated by a Wesleyan College faculty member, who is also on the Newtown Elementary School Planning Council. The first program involves ongoing mentoring, where VWC students tutor struggling elementary students. This program has been successful because tutors are encouraged to develop a caring relationship with the students as well as to focus on academic concerns. Social events sponsored by the college open and close the program each year. Activities throughout the year include a field day, storytelling, pumpkin carving, and an Easter egg hunt. "Rising Stars," another joint project, is held four times during the academic year. The focus of Rising Stars is again on academics: fourth- and fifth-grade students are paired with college students for an all-day campus visit to experience a taste of college life. VWC students are encouraged to maintain their relationship with the "star" for the rest of the school year, checking on report cards, homework, and general school success.

"Pipeline to the Community," the third and newest effort, coordinates parent education with a child enrichment program for three-year-olds. Families attend parenting-skills workshops conducted by Virginia Wesleyan and Newtown Elementary faculties while their three-year-olds are involved in a preschool experience with VWC student volunteers. Child care is provided during PTA meetings to encourage single parents to attend. The PTA has a 90 percent parent involvement rate as a result of the Pipeline venture, with as many as 75 percent of the parents maintaining their involvement beyond the Pipeline experience. Parents have said that their early experiences with the school helped them bond both with their child and the school and that they felt more connected to the school as a result of the program. The partnership encourages, through direct aid, students' academic performance at the elementary level. The partnerships also provide Wesleyan students an outlet for their academic talents and serve as a testing ground for those students interested in early childhood or elementary education. VWC student volunteers at Newtown Elementary get a chance to see a program for three- and four-year-olds; such programs are rare in most public schools.

The VWC campus also extends to Oscar Smith High School. Like Newtown Elementary, Oscar Smith draws its population from a variety of neighborhoods. A Virginia Wesleyan faculty member serves on the Oscar Smith Principal's Advisory Board. The first of three programs currently being conducted is the "Homework Room." Here Wesleyan students volunteer for one hour a week to aid learners who are having difficulty with their homework assignments. Teacher aides are also provided for twenty teachers for one or two hours a week. "Collegians of Tomorrow" is the high schoolers' chance to spend the day as a college student. Twenty at-risk sophomores (10 boys and 10 girls) are selected to spend the day with selected student mentors on Wesleyan's campus. The high school students attend classes, tour the campus, eat in the dining hall, and visit dormitories. The goal of the program is for these students, most of whom have not considered

AEL's Colleges and Schools program is dedicated to the development of college-school partnerships to improve professional preparation and/or local school programs.

college, to include higher education in their life plans and work toward that end in their remaining high school years. VWC students also participate in social functions at the high school, including the homecoming parade, an after-prom all-night party, and a St. Patrick's Day activity.

Oscar Smith students have reacted positively to the programs. One "complaint" was that they did not have a chance to sit in on enough college classes, indicating that the college exposure—as well as the "fun" things—was an important feature. Learning experiences for VWC students also result, although they may be more subtle. One of the hostesses of "Collegians for Tomorrow" took her mentee to her dorm room, where the visitor remarked that she had never seen so many clothes, shoes, etc., in one place. The hostess said she would never feel the same about her closet again. With the first Oscar Smith class to receive assistance nearing graduation, Virginia Wesleyan's Adopt-a-School staff hope that the expectations of students have been raised. VWC hopes to track some of the graduates to see whether they do, in fact, enroll in college. The Adopt-a-School staff point out the program's cost effectiveness—a two-year grant at $1400 per year—will actually carry the program through a third year with no additional funds required.

The partnership provides the college students with populations for undergraduate research projects and an observation ground for those Wesleyan students interested in secondary education. However, many students continue their commitment by returning to their adopted school to tutor. Some Wesleyan students were also involved through work-study programs, thus benefiting both the public school students and themselves.

Both the elementary and secondary partnerships have plans to increase involvement. The Newtown Road Project hopes to expand their Pipeline to the Community program. Possibilities for student teaching placements and workshops for inservice teachers delivered by VWC faculty are being discussed for Oscar Smith High School. Virginia Wesleyan's Adopt-a-School programs have much to offer both the public schools and the college. In the spirit of the African village, they are raising not one, but many, children.

For further information about Virginia Wesleyan College's Adopt-a-School program, contact Dr. Lin Logan, VWC, 1584 Wesleyan Drive, Norfolk/Virginia Beach, VA 23502; phone her at 804/455-3382; or FAX 804/461-5044. Ginger Ferris may be reached at the same address, or you may phone her at 804/455-3236.

Partnerships That Provide Authentic Field Experiences for Preservice Teachers

Contributor: Dr. Merribeth Bruning,
University of Tennessee-Martin

How does teacher education bridge the gap between theory and practice, especially with students' limited opportunity to "practice" prior to student teaching? How can schools of education infuse new research into existing classrooms, as well as profit from the experience of classroom practitioners and maintain empathy with teachers and administrators in public schools? These are dilemmas that many university teacher education programs face. The University of Tennessee-Martin (UTM), located in a rural area, has no laboratory facility for school-age children other than the campus after-school program. This has necessitated creating partnerships with classrooms from public schools and other community agencies.

As a result of longstanding collaborations with Martin, Union City, Weakley and Obion Counties, UTM has developed a partnership philosophy which is comprised of the following factors:

- partnerships develop when there is mutual respect, personal involvement, and commitment;
- partnerships evolve when public school expertise comes to campus by invitation;
- partnerships develop through identification of a specific need and through encouragement of innovation; and
- students can be a source of partnership building.

The school of education at UTM has long recognized the need for authentic field experiences for preservice teachers. Faculty assist individual public schools with projects and ask to have students observe and present lessons with the public school children. A "Tea for Cooperative Teachers and Principals," held at the conclusion of each semester for teachers and students participating in practicum and student-teaching placements, expresses appreciation to public school personnel. A banquet honoring outstanding public school teachers nominated by the university freshman class and held in the spring of alternating years is a special night of recognition. UTM-public school partnerships are also reciprocal; public school teachers come to campus and present lessons in preservice education courses, and the school of education has had a teacher-in-residence faculty member for three years. The teacher in residence receives a year's leave of absence from the school district and team teaches with other departmental faculty in methods courses and introduction-to-teaching courses. The presence of the teacher in residence provides a positive link to the public schools and a "real-world" connection for prospective teachers.

In addition to the previously mentioned programs, UTM has undertaken three special, innovative efforts to respond to the needs of students and communities. The first is a partnership with the Socorro Independent School District of El Paso, Texas. During preparation for a recent National Council for Accreditation of Teacher Education (NCATE) visit, UTM identified a need for preservice field experiences with diverse student populations. A colleague in El Paso who knew a faculty member at the university served as a liaison. During the first summer session of 1994, a multicultural course was offered with a two-week laboratory in the Socorro schools. University students prepared a unit of instruction to teach in Texas. They studied some of the issues in multicultural education and had a brief cultural immersion experience during the two weeks in El Paso. The classroom teachers from Socorro appreciated the infusion of new ideas, Tennessee accents, and eagerness of the university students to learn from them and to learn about their students and the Southwest. The university students benefited from the positive atmosphere of classroom teachers who are meeting daily the multiple needs of students operating in at least two cultures. University students recognized and had a taste of the challenge of ESL students, border schools, minority status, and cultural similarities and distinctions in these authentic classroom experiences. The benefits were numerous for both sides. The partnership continues with e-mail pen pals from Socorro Middle

School and language arts/social studies methods students at the university. The course, *La Experienca Educativa en El Paso*, is now a biennial offering for the Department of Educational Studies. Students have already started applying for the 1996 offering.

Another significant partnership resulted from the personal community involvement of a UTM education major, who was an employee in a comprehensive program designed and implemented by a neighboring university for at-risk families. The UTM student, an educational assistant in the neighboring university's program, invited a faculty member from UTM to visit her center. The federally-funded project—part of the Tennessee Cares program—helps families assume responsibility as their child's first teacher. Subsequently, a UTM partnership evolved. The partnership utilizes the weekly meeting sites of the program for parents and children. It provides another dimension to field experiences and reinforces parent involvement. The five centers with Tennessee Cares in northwest Tennessee (including centers in Martin, Union City, and Paris), have provided university students the opportunity to present multiage lessons in a community-based program. The opportunity for education majors to work in a multiage and at-risk population teaches interrelational skills and also provides a glimpse into the concerns of the families.

Third, through a friendship between a faculty member and one of the associate county extension agents in Obion County, a partnership between Mini 4-H and preservice teachers at UTM evolved. With permission from the county superintendent, principals, teachers, and the dean of the school of education, preservice teachers participated in a program for students in third grade. A successful pilot project resulted in a subsequent ongoing partnership with Mini 4-H. Mini 4-H provides an introduction to the leadership opportunities and social activities regular 4-H provides. This bridge between learning in school and learning in the community has significantly benefited children in the 4-H program and the university students. After a campus visit to explain Mini 4-H by the the associate county extension agent, preservice teachers created an international foods lesson. The university students elaborated on information shared by the agent about international foods. Students worked in small groups to create a lesson plan. The evaluation and revision of the plan were part of the assessment for the university course. The preservice teachers taught the lesson to a group of third-grade students. University students and children enjoyed the creation of an international or cross-cultural recipe. In the words of a university student, "It is so beneficial to find what works and what does not when working with real children." Another commented on the reality of preparation: "I learned about a country and a culture about which I knew very little. I did not realize how much research went into one short lesson!"

Partnerships that encourage collaboration are essential for dialogue among universities, public schools, and community agencies concerned with children and families. Local public schools, schools in other areas of the country (via the Internet and short-term teaching laboratory opportunities), and other community agencies are resources that can provide authentic preservice teaching opportunites.

Preservice teachers need to develop sensitivity to diversity. Partnerships help preservice teachers face the challenge of teaching a population of students who are increasingly ethnically and culturally diverse. Partnerships allow face-to-face encounters with children in real classroom settings. Management strategies are often "caught" as well as "taught." Observation of other educators and staff of community-based organizations who use positive motivation and management in interaction with children, parents, and other staff can reinforce the significance of these behaviors.

In addition, students in the public schools and community agencies can benefit from information presented by fresh, enthusiastic university students who bring vitality to special lessons. Children may begin to think about education beyond high school and future careers partly because of the infusion of students from the university. Classroom teachers have the opportunity to share their love of children and their expertise in the classroom, as well as to receive new ideas from university students. *Partnerships are a team approach to education.* Schools can benefit from current research and methods that universities share through partnership experiences. Teacher educators must continue to find/create opportunities for authentic encounters of a meaningful kind. Even brief authentic experiences can underscore the importance of research, planning, and opportunities to interact with diverse student populations. Partnerships can provide these authentic, meaningful encounters.

For further information about UTM partnerships, contact Dr. Merribeth Bruning at the University of Tennessee-Martin, 240 Gooch Hall, Martin, TN 38238; phone 901/587-7214; or FAX 901/587-7205.

College-Community Connections for Families and Children

Contributor: Dr. April Beavers, Concord College

Strong families produce healthy children; healthy children are more successful in school and, therefore, are more likely to go to college; and college graduates are more likely to be employed. Thus, institutions of higher education have a vested interest in strengthening schools and preventing school problems.

West Virginia is largely a rural state, and access to services is limited. In Mercer County alone, 16 percent of families are without telephones. Social and health services are fragmented and scattered. Getting transportation to services that can meet needs is a major problem for many families. In this environment, the accessibility of schools, as well as a perception of schools as the focus of the community, assumes importance in the delivery of needed services.

Over the past three years, Concord College received a series of planning grants, funded primarily by the Governor's Cabinet on Children and Families. These grants established Family Connection, a resource network that provides collaboration among families, area agencies, and organizations. With leadership and sponsorship from the college, needs were assessed, priorities established, and strategies developed to address the needs. Now, three and one-half years later, the Governor's Cabinet continues to support the administration of the family resource network. In addition, multiple funding sources support ongoing planning efforts and extensions of direct services by others in the community.

Recently, the Family Connection advisory board incorporated, forming Community Connections, Inc. (CCI), a nonprofit corporation with a board of directors and representatives from the Mercer County departments of human services, mental health, and health; the board of education; consumers; and the community. The mission and values statements of CCI have become guiding principles for the growth and implementation of programs. The mission of Community Connections is to establish a community-based network that facilitates the development and delivery of comprehensive services for all residents of Mercer County through advocacy, community coalitions, and development of services.

Defining a "family" in the broadest sense, the mission of CCI is derived from the following values statements:

- Primary responsibility for the development and well-being of individuals lies with the family.
- The cornerstone of a healthy society is the well-being of its families. Families that function well support future generations.
- Families exist as part of an ecological system. Children cannot be seen as separate from their families, nor families separate from their community or the greater society.
- Our society, individuals, agencies, and government at all levels must assist, not hinder, the motivation and abilities of families.
- Family independence is fostered through interdependence of individuals and their communities. Families who receive adequate support are more capable of supporting themselves. It is a myth that any family can do it alone.
- All people are valuable to our community and will be accepted as full members of the community.
- The community has a responsibility to support, protect, deliver, and offer services in order to empower the families within that community.

The collaborative efforts of CCI have focused on community-determined priorities: access to services and issues of early childhood, at-risk youth, and victims of domestic violence. Many of the accomplishments of the planning grant are relevant to education access in Mercer County.

The Mercer County Early Childhood Alliance includes parents and representatives from licensed day-care centers, Right from the Start, Head Start, early intervention and nutrition programs, protective services, and the public schools. The purpose of the Alliance is to envision, plan, and establish comprehensive services for young children. So far the Alliance has (a) established a chapter of the West Virginia Association for Young Children, (b) received a federal grant to establish and support three day-care centers, and (c) developed and distributed an information brochure for parents on quality child care. The group is in the process of developing and administering an assessment instrument which will survey child-care providers and parents.

Two separate efforts have been initiated for at-risk youth, the first to lower dropout rates among disabled students and the second to prevent delinquency. The Transition Coalition Link is developing a countywide interagency system to provide transition services for disabled youth from schools into the community. As part of the program, all eighth graders in the county are being tested for vocational interests and aptitude and will receive counseling over a two-year period. In addition, the coalition is pilot-testing a release of information form among its participants, including representatives from the county departments of health, mental health, and human resources; the probation office; the board of education; and parents. Concord College administers the grant. A newly-funded juvenile delinquency prevention project will be located at a junior high school. The Mercer County Board of Education is contributing the project director's time and space for a staff person. This person, a family resource coordinator, will provide case management for 50 youth at risk for juvenile delinquency. Representatives of the families and various community agencies will serve as the multidisciplinary treatment team.

Reactions to CCI have been enthusiastic. With large numbers of community members involved—representing all facets of the community—the project demonstrates a pulling together that otherwise might have been impossible. Ongoing programs continue to evolve, and a full-time director has been hired. Community contributions to the collaborative planning efforts have been documented as part of the project evaluation. In three years, community leaders, heads of major agencies, and consumers on the board and on associated alliances contributed approximately 3,361 person hours worth approximately $67,220. This figure excludes time in training and other networking activities.

The reasons that institutions of higher education should become involved in communities are numerous. Interagency planning and cross-agency staff development can eliminate duplication and improve effectiveness in services. Professional development, service, and research opportunities for faculty and practicum experiences for students can result. The public can learn of resources and expertise available at publicly funded institutions. College and university partnerships with other agencies can make a difference in the lives of children and families and ultimately in the economy. Partnerships can influence welfare and educational reforms at the local level while working at the state level to eliminate barriers to services. Together, citizens in communities can take responsibility for the community's own children and families.

Dr. Beavers, professor of early childhood education at Concord, served as executive director of the project for three and one-half years. For further information on interagency planning, contact Dr. April Beavers, Department of Education, Concord College, P. O. Box 1000, Campus Wall Box, Athens, WV 24712; phone 304/384-5209; or FAX 304/384-9044.

Strengthening Our Future: A Partnership for School Transformation

Contributors: David Burchfield, Ottobine Elementary School; Patricia L. May, Rocco Enterprises, Inc.; and John Noftsinger, James Madison University

"Strengthening Our Future" is a university-public school-corporate partnership that seeks to transform education in a small, rural community. Ottobine Elementary School serves a rather culturally homogeneous population of 295 students in the isolated rural southwest corner of Rockingham County, Virginia. Rockingham County is in the heart of Virginia's Shenandoah Valley. Many of Ottobine's students can be considered at risk. About 30 percent of the students qualify for free and reduced-price lunches. Traditionally, the students at Ottobine have scored lower on standardized tests than their peers in more suburban settings.

James Madison University (JMU), located in Harrisonburg, Virginia, is home to 12,000 students. A regional comprehensive university, JMU has made a concerted effort to reach out to its surrounding community. The university was interested in helping prepare elementary schools and their students for college and in finding ways to give JMU students practical experience in different career fields.

Rocco is a medium-sized poultry company headquartered in Harrisonburg, Virginia, employing about 3,700 people in the Shenandoah Valley. In 1991, Rocco made a corporate decision to begin establishing relationships with local school districts. The corporation wanted to see how schools prepared students for the future workplace. One of the first results of this corporate initiative was the "Strengthening Our Future" partnership. This partnership includes an elementary school that brings an open system to the partnership, a business with a commitment to long-term investment, and a university with a vision for community outreach.

The first step in forming the partnership involved a meeting with representatives of the school, the university, the business, and the community to develop a mission statement satisfying each party's agenda. The next step was to develop a three-year plan to meet the needs of Ottobine Elementary students as outlined in the partnership's mission statement and its underlying assumptions. The partnership sought to instill within Ottobine Elementary students an understanding of the importance and relevance of education to their futures. Implicit in the mission are the following general beliefs:

Ottobine students should

- be adaptable to an ever-changing world,
- have the skills necessary to pursue learning as a lifelong goal,
- be equipped to function in a culturally diverse society,
- exhibit confidence to master our computerized world through technical understanding, and
- aspire to excellence in all that they do so that they will value the merits of quality performance in the workplace of the future.

Through two technology grants funded by Rocco, Ottobine was able to provide computers in every classroom and network the classrooms together. The partnership has literally transformed the small, rural school into a state-of-the-art elementary school that is prepared for the future.

In addition, JMU has helped to develop a Spanish-language program. JMU students develop curriculum materials and use them to teach Spanish language and culture to students in Grades K-5. Rocco pays for the materials and the mileage for the student volunteers. Ottobine is the only elementary school in Rockingham County to offer Spanish as part of its normal curriculum, and it is offered to **all** children during regular school hours. Children like the fact that young, energetic JMU students teach the classes. JMU students, through the Center for Service Learning, also serve as Big Brothers/Big Sisters to about 40 at-risk Ottobine students.

Ottobine Elementary has won local, regional, and national awards through innovations resulting from the Ottobine-JMU-Rocco partnership. The partnership is ongoing, and strategic planning allows the project to continue to evolve. Ottobine's planning now involves several levels of partnerships, and other nearby institutions, such as Bridgewater College, have joined the efforts.

While the elementary school has benefited in many measurable ways, JMU and Rocco have also profited from the venture. The university is provided placement for student teachers, practicum participants, volunteers, and mentors. Rocco employees who have children in the school feel that they are being well-served. Rocco feels that the partnership is a way to do something positive for the community and show that it is truly committed to education.

For further information about the Rocco-JMU-Ottobine Elementary partnership, contact Patricia May at Rocco Enterprises, P. O. Box 549, Harrisonburg, VA 22801; phone 540/568-1413; or FAX 540/568-1401. John Noftsinger may be reached at James Madison University, Office of Academic Affairs, Harrisonburg, VA 22807; phone 540/568-6715; or FAX 540/568-7800. For a brochure series about the partnership, contact David Burchfield, Ottobine Elementary School, Dayton, VA 22821; phone 540/879-9712; or FAX 540/879-2556.

Higher Education Reform Publication Being Developed

The following article is excerpted from the concluding chapter of a collection of monographs being published by the American Association of Colleges for Teacher Education (AACTE). Deans of several prominent colleges of education have written chapters dealing with accountability, licensure, and reform in teacher education. Further information about the publication can be obtained by calling the Colleges and Schools Program at AEL, 800/624-9120.

Higher Education and the Public Schools: Change, Collaboration, and Accountability

Contributor: Dr. James M. Cooper, University of Virginia

In recent years, there have been numerous calls for change in higher education. The emphasis on accountability brings to mind the Don McLean song "You Can't Blame the Train" (1987). The lyrics go like this:

> When the gates are all down
> And the signals are flashing,
> The whistle is screaming in vain,
> And you stay on the tracks, ignoring the facts,
> You can't blame the wreck on the train.

The message here seems pertinent to higher education: many external voices, including influential policy- makers, are exhorting us to make changes to become more efficient and more focused on societal needs, and to ignore these "whistles" and "signals" is akin to staying on the tracks as the train rushes forward. If higher education does not make the changes being called for, the wreck can't be blamed on the train.

Most parents and students measure the quality of the higher education experience in terms of students' ability to garner secure and well-paying jobs. More and more parents and students voice concern that after four years of expensive education, many are not prepared to enter the workforce. Instead of being conceived of as a public good that needs to be subsidized by the state, public higher education is increasingly being viewed by legislators as contributing more to individual advancement. Also, parents and students have become more consumer conscious, seeing themselves as customers of higher education and demanding customer rights. Moreover, as the general public increasingly resists high taxes, a press for privatization of many aspects of higher education is developing. Calls for change are being directed at higher education from many different sources.

Public policymakers, including governors, legislators, and heads of public agencies, have voiced anger at higher education for its slowness and reluctance to change. As business and industry have been forced by economic realities to rethink their missions and purposes and to scale back the size of their operations, public policymakers believe that higher education has been too insulated from these same economic forces. Within the context of higher education, schools of education and their teacher preparation programs are also being asked to change. Schools of education are being asked to reexamine their purposes and to refocus their missions.

What should an effective school of education seek to achieve? The following are three primary criteria for judging the effectiveness of a school of education:

- How well does the school prepare personnel to work in our educational system?
- Is the school actively involved in the improvement of America's educational system?
- Is the school helping to advance the knowledge bases of those areas in which it has chosen to specialize?

In short, schools of education must effectively prepare teachers and administrators to work in our educational system; the faculty and students in a school of education must also work collaboratively with public school people in addressing the problems and challenges of our public education system; and schools of education in research universities must "create" new knowledge to inform educational practice.

In determining mission and priorities, schools of education must consider their special characteristics and strengths. For example, if the university is located in a rural area, the school of education will most likely be expected to prepare school personnel for that area, as well as collaborate with the local schools to address some of the problems of rural education. The school of education must also determine what its relative emphasis between undergraduate and graduate education will be, and this emphasis must be understood and accepted by the major constituents of the school.

Focusing on quality requires the school of education to set and adhere to high standards for students and faculty alike. Requirements must be rigorous and meaningful and must be assessed in an appropriate fashion. Realistic admission and graduation target goals must be established. Priorities must be chosen and the number of educational programs must be limited. Faculty must come to understand that schools of education cannot respond to every need, however legitimate those needs may be. Choices must be made and kept. A thorough curriculum review should be undertaken to reduce the number of underenrolled specialized classes by eliminating them entirely or scheduling them on a yearly or biennial basis.

Schools of education must also give attention to improving their own pedagogy. Nothing diminishes a school of education's reputation more than poor teaching. The quality of practicum experiences must be ensured by selecting only the best sites and best mentors. Faculty must also be on the cutting edge in technological applications to teaching and learning to help provide leadership in both the university and public school settings. Faculty need to explore the use of instructional models other than one teacher and a class meeting one, two, or three times a week. The use of learning groups connected by electronic mail and listserves, for example, makes students responsible for their own learning while also helping them to develop skill in using their new technologies. Bridging the theory-practice gap through the use of written and videotaped cases holds considerable promise. Teacher educators know more different models of instruction than other higher education faculties but have not always used these models in their own teaching. It's time that we exemplify what we advocate.

Our connections with practitioners must be strengthened, for faculty members and students have much to learn from them. We recently have seen many promising developments in connecting schools of education with the public schools. Professional development schools, which may be thought of as the educational analog to teaching hospitals, offer much promise in helping to make these connections. Another promising partnership between higher education and the public schools is the development of university/school consortia to focus on both research and staff development needs. These collaborations are essential to the process of change, as is the need for accountability.

The standards movement in education is a part of the larger movement toward accountability. By specifying standards that students and teachers are expected to achieve, the results of the education process are made known to all. Thus, if standards are identified and agreed upon, someone can be held accountable. If standards are not made explicit, then it is very difficult indeed to hold anyone accountable for either success or failure. The problem, of course, is that while the notion of accountability is appealing to many people, the locus of responsibility for attaining educational outcomes is diffused among many parties.

The following, then, are recommendations for teacher educators truly committed to reform:

- Establish credibility at home. To influence change processes in schools and universities, teacher educators must have established credibility with teachers and administrators in the local schools, as well as with their colleagues in arts and sciences.
- Establish forums for major educational stakeholders. Teacher educators can contribute a great deal toward coordinated efforts to influence educational policies at the state level by convening educational forums to discuss topics of common interest to major educational stakeholders.
- Develop common positions among colleges and universities. Just as it is important to develop common positions among different educational organizations, teacher educators in different institutions also need common positions and agendas.

As teacher educators, it's up to us to make the changes being called for. If we stay on the tracks, ignoring the facts, the wreck that results is hardly the fault of the train.

Reference

Sharp, T. (Composer). (1987). You can't blame the train. (Performed by D. McLean). Bocephus Music/Paradise Cove Music, Inc./ BMI.

Dr. James M. Cooper may be reached at Ruffner Hall, 405 Emmet Street, University of Virginia, Charlottesville, VA 22903, phone 804/924-0860; or FAX 804/924-0747.

Project Kaleidoscope

Recently, a school administrator in the AEL Region commented that if you walked into a science or mathematics classroom now, it would not be too different from 30 or 40 years ago. However, with a focus on the national standards, educators are realizing the need for rapid change. There is a growing feeling that higher education has much to offer the school reform movement, and concerted efforts to effect change in the mathematics and science classroom are occurring. One such conduit for change is Project Kaleidoscope (PKAL).

Project Kaleidoscope is an informal national alliance of individuals, institutions, and organizations committed to strengthening the nation's undergraduate programs in science, mathematics, engineering, and technology education. Just as the instrument for which it is named reflects flexibility and change, the project sets forth adaptability, flexibility, and a willingness to accept change as key principles in its efforts. The primary goals of PKAL are to make a visible difference in undergraduate programs in science and mathematics and to shape the national dialogue about the contribution of undergraduate mathematics and science education.

Project Kaleidoscope challenges faculty and administrators to give attention to **all** facets of the undergraduate environment; understand that a multiplicity of approaches can be adapted to specific circumstances and institutional environments; and recognize that everyone with a stake in undergraduate science and mathematics education must come together to make decisions about strategic priorities—dollars, people, space, and time.

PKAL began in 1989 with a grant from the National Science Foundation (NSF) to outline an agenda for reform of mathematics and science education in the nation's undergraduate institutions. During Phase I (1989-91), PKAL identified **what works** in science and mathematics education: a thriving community of students and faculty working together in a research-rich environment. This vision of **what works** serves as the foundation for all PKAL activities. At the conclusion of Phase I, PKAL sponsored a national colloquium at the National Academy of Sciences and published *PKAL Reports—Volumes I and II*.

Project Kaleidoscope continues to receive public and private support. Phase II (1992-94) has been supported by grants from NSF; the U. S. Department of Education, Fund for the Improvement of Postsecondary Education (FIPSE); the Camille and Henry Dreyfus Foundation, Inc.; the Exxon Education Foundation; the W. M. Keck Foundation; and the Research Corporation. During this phase, PKAL has sponsored 22 workshops involving approximately 1,000 persons representing 400 institutions—public and private, large and small, from all parts of the country. In addition, PKAL has held seven workshops on facilities involving 113 institutions. The group has published two occasional papers: *The Research-Rich Environment* and *Leadership—Challenges for the Future*; these include proceedings from PKAL national symposia held in January 1993 and 1994. PKAL has identified 50 Programs That Work, programs successful in attracting and sustaining student interest in the sciences and mathematics.

During the second part of Phase II (1995), the project will publish Volume III of the *PKAL Reports*, a handbook for facilities planning. Ten workshops have been held or will be held later this year; topics include "Revitalizing Introductory Biology," "Science as a Liberal Art," "Programs for Minority Student Success," "PKAL Faculty for the 21st Century," and "The Global Dimension of Undergraduate Science and Mathematics Education." The PKAL faculty for the 21st Century Class of '94 and Class of '95 will work together with the larger Project Kaleidoscope community to address challenges for faculty at the early stage of their careers. PKAL will expand its outreach to the international undergraduate science and mathematics community.

The group has also established an Internet link to facilitate the exchange of ideas—engaging and expanding the national community committed to and equipped for reform. Abstracts for each of the Programs That Work are found there. PKAL e-mail families continue conversations begun at workshops. The PKAL gopher server is found at **bbs.augsburg.edu**.

For more information about Project Kaleidoscope, including the procedure for applying for a workshop, contact ICO-PKAL, Suite 1205, 1730 Rhode Island Avenue NW, Washington, DC 20036; phone 202/232-1300; FAX 202/331-1283; or e-mail pk00274@psilink.com.

The Renaissance Group

Contributors: Dr. Carl Martray, Western Kentucky University, and Dr. William Callahan, University of Northern Iowa

Founded in 1989, the Renaissance Group is a consortium of 21 universities noted for their teacher education programs. The purpose of the group is to improve the education of teachers on member campuses and to facilitate efforts to reform teacher education nationally. The small group of universities involved in the original meetings identified teacher preparation as one of the highest priorities of their institutions. For a university to be active in the Renaissance Group, the dean of the college of education, the highest ranking academic officer (presumably, the vice president or provost for academic affairs), and the president must become members. This provision requires real commitment on the part of the whole academic community, but it also helps mobilize universitywide support for the education of teachers and adds credibility to the group.

Now educating one out of every 15 new American teachers (a remarkable statistic!), the Renaissance Group has adopted 12 principles, which it believes undergird effective teacher education programs. These principles are both statements of best practice and objectives to be achieved at colleges and universities that strive for quality programs for the education of teachers.

1. The education of teachers is an all-campus responsibility.
2. Programs for the preparation of teachers thrive in a university culture that values quality teaching.
3. Decisions concerning the education of teachers are the shared responsibility of the university faculty, practitioners, and other related professionals.
4. The initial preparation of teachers is integrated throughout a student's university experience and is not segmented or reserved to the student's final year.
5. The appropriate role of the state is to establish outcome expectations for teacher education graduates; the appropriate role of the university is to determine the curriculum, standards, and internal policies for teacher education programs.
6. Rigorous learning expectations and exit requirements characterize the program to educate teachers.

7. The academic preparation of teachers includes a rigorous general education program, in-depth subject matter preparation, and both general and content-specific preparation in teaching methodology.
8. Teacher education programs reflect American diversity and prepare graduates to teach in a pluralistic and multicultural society.
9. The education of teachers incorporates extensive and sequenced field and clinical experiences.
10. Quality teacher preparation programs have faculty who are active in scholarly and professional endeavors.
11. The continuing professional development of teachers and other education personnel is the shared responsibility of the university faculty and other education professionals.
12. Programs to educate teachers for the new world have sufficient support to implement these principles.

The attempt to mobilize entire universities in support of teacher education is unusual and holds extraordinary potential for enabling the Renaissance Group to make a significant contribution toward improving its member institutions as well as American education. However, the Renaissance Group's mission extends beyond improving the education of teachers at member campuses. Its members are engaged in interuniversity research and collaborative projects aimed at educational reform and work with other professional groups and policymakers to influence state and national education policies. More than a dozen multiuniversity task forces have been established to advance this broad agenda.

One research project of the group involves the issue of equity, which must be addressed in schools of education and in continuing professional development. The main goal of this research is to determine to what extent the targeted policymaking groups (superintendents, school board presidents, deans of schools of education, and the like) have developed or planned policy and/or implemented practices that counteract gender-biased practice and thought in schools. Because influencing national policy as it relates to the preparation of outstanding teachers is one of the action agendas of the Renaissance Group, this research supports the agenda in that the central focus concerns how recent national reports have initiated policy actions or changes in the schools and universities. This research centers around a major national effort in the issue of gender equity in schools and identifies the school district superintendent and the school board president, as well as deans, as education professionals who can facilitate the necessary changes in the continuing professional development of teachers, particularly in the area of equity.

Another effort of the Renaissance Group has been a project integrating multimedia technology with case methodology to create a case-based curriculum for teacher education. This project uses advanced, multimedia computer technology to create, develop, and implement a case-based curriculum for use with preservice and inservice teachers in university-based teacher education programs. More specifically, computer technology is used to create a student workstation consisting of an anthology of videotaped cases. The goal of this project is to begin a line of research designed to investigate the efficacy of using multimedia technology in tandem with case methodology to better prepare teachers for the 21st century. It represents an opportunity to create and make available to teacher educators a variety of videotaped case materials for use in preservice classes.

The group's most recent newsletter, *Principle Evidence*, describes evidence of achievements and replicable programs at member institutions. It also lists names and numbers for contact persons in individual colleges of education. This information may be viewed at the group's new WWW site—http://www.umich.edu/~edschool/Renaissance/index.htm.

The principles of the group have been widely disseminated, and the number of member institutions is increasing. Universities acquire member status by agreeing that deans of education, academic vice presidents, and presidents will become involved and attend meetings. Acceptance of a new member institution also requires the vote of present members.

When asked why his university belongs to the Renaissance Group, President Joseph Caputo of Millersville University responded: "The Renaissance Group keeps me engaged in and knowledgeable about teacher education matters nationally, regionally, and locally. It also gives me a further and more visible role in teacher education on my own campus and in my own community." President Hoke Smith (Towson State University) added: "The Renaissance Group provides us with an outstanding peer group of institutions who provide positive leadership in the continuing revitalization of teacher education. We benefit from this participation through the ideas we exchange and the colleagues."

Dr. James Walker, president of Middle Tennessee State University, concurred with his colleagues when he said that his university has realized a number of important benefits as a result of Renaissance Group membership. It has incorporated into its program specific ideas learned from other Renaissance Group institutions. Renaissance Group membership has also helped MTSU give focus to teacher education programs. The university has also benefited from being part of a national movement. Walker added: "Being an active Renaissance Group member signals to the larger community that MTSU is a leader in the reform of teacher education."

The Renaissance Group will contribute to the increased sharing of ideas among universities with colleges of education. Collaboration on joint projects is expected, and individual members must attend working meetings where critical issues are addressed. By fostering relationships with other organizations in the educational community, the group has created an infrastructure that allows for a great deal of networking to deal with common issues. Universities in the AEL Region that currently hold membership in the Renaissance Group are Kentucky State University, Western Kentucky University, Middle Tennessee State University, and Norfolk State University in Virginia. With the list having grown from six to 21 since its inception, it can be assumed that the group will continue to increase in number as more institutions recognize the benefits obtainable from this collaborative endeavor.

For further information about the Renaissance Group, contact Dr. William Callahan, Schindler Education Center, University of Northern Iowa, Cedar Falls, IA 50614, phone 319/273-2092, or FAX 319/273-2607. Dr. Carl Martray may be reached at the College of Education & Behavioral Sciences, Western Kentucky University, Bowling Green, KY 42101, phone 502/745-4662, or FAX 502/745-6474.

The Fall issue of "Dialogue" was prepared by Patricia McClure.

SCHOOL GOVERNANCE & ADMINISTRATION

EXCHANGE

AN AEL FORUM FOR LOCAL SCHOOL ADMINISTRATORS

This issue features a discussion on the issues surrounding the authority for decisions made by local school boards versus local school councils. Thanks to W. A. Franklin, Kentucky Association of School Administrators (KASA) and AEL Board member, for coordinating this issue.

School Governance & Administration Staff
- Sandra Orletsky, Director
- Beth Sattes, R & D Specialist
- Pat Cahape Hammer, Editor

Supplement to The Link, Vol. 14, No. 2

The Boone County Decision: Defining School Councils' Authority

by David L. Yewell, Attorney
Rummage, Kamuf, Yewell, Pace, and Condon
Owensboro, KY

On December 22, 1994, the Supreme Court of Kentucky issued a decision in the case of *Board of Education of Boone County, KY, v. Bushee*, KY, 889 S.W. 2d 809 (1994). This was the culmination of litigation that began years ago in Boone County, KY, arising from a dispute about a specific provision of a Boone County Board of Education written policy:

> By each September board of education meeting, each council shall submit in writing for board review and approval the following:
>
> 1. measurable goals (related to the goals listed in HB 940, Part 1, Sections 2 and 3) and objectives for the school year,
> 2. implementation plan for achieving its goals and objectives, and
> 3. method of evaluating the effectiveness of the implementation plan.

Officers of the Boone County Education Association and a Boone County teacher challenged the portion of the board's policy that required school councils to submit these items for review and approval each September. The council contended this "review and approve" requirement usurped the authority of the local school council to act as an independent decision-making body, as envisioned by the Kentucky General Assembly when it passed the broad reforms of the Kentucky Education Reform Act (KERA) in 1990. KERA had been enacted as the result of the 1989 Kentucky Supreme Court landmark decision that declared unconstitutional the entire Kentucky public common school system.

The Boone Circuit Court in Boone County, KY, first ruled in favor of the Boone County Board of Education and upheld the Boone County Board policy as written. On appeal to the Kentucky Court of Appeals, the Boone Circuit Court decision was reversed in favor of the teacher and school council. Last December, the Kentucky Supreme Court reviewed the case and decided in favor of the teacher and school.

The 1994 Boone County decision was the first opportunity to address KERA that the Kentucky Supreme Court had received. All of the major contributors to the Kentucky public education system have separate roles; the Kentucky Supreme Court used the *Boone County* case as its vehicle for defining these roles. The Supreme Court commented in its decision: "We affirm the result reached by the Court of Appeals but believe our understanding of KERA to be different than that expressed by that Court. This opinion was an attempt to clarify the designated participatory roles for each contributor to the public education system" (*Boone County v. Bushee*, p. 811).

The *Boone County* decision clearly defines the separate KERA roles of state government, local boards of education, and local site-based councils. A discussion of these roles follows.

The Role of State Government

Generally, state government is obliged to provide adequate funding for the overall success of the common school system. In addition, state government is responsible for ensuring that learning objectives are achieved in all schools of the Commonwealth of Kentucky. This second responsibility is carried out by the State Board of Education, using the goals and measurement system developed by the Council on School Performance Standards.

Specifically, the role of state government described in the *Boone County* decision includes (a) accounting for all state educational funds, (b) ensuring that learning objectives are achieved in all schools, (c) developing a model curriculum, and (d) administrating KERA overall.

Local Boards of Education

Under KERA, the General Assembly also delegated specific responsibilities to local school boards. Conspicuously absent from these listed powers is any suggestion that local boards of education set school policy at individual schools within districts (*Boone County v. Busher*, p. 813). Rather, the nature of the duties enumerated by the legislation suggests that local boards of education be responsible for district-wide concerns, such as the management of local funds, hiring and paying the superintendent, management policy for other district-wide personnel, and managing property. There are no further areas of authority given to local school boards in the language of the *Boone County* case than these (*Boone County v. Busher*, pp. 813-815).

Specifically, the role of a local board of education under the *Boone County* decision includes—

(a) managing and accounting for all local district funds;

(b) establishing and managing district-wide personnel policies;

(c) fixing compensation for all district employees;

(d) hiring and evaluating the district superintendent;

(e) managing and accounting for all district property;

(f) expelling students;

(g) establishing graduation requirements for all students;

(h) adopting district plans, goals, and expectations;

(i) setting the district school calendar, including the beginning and ending times of the school day;

(j) determining whether and which additional assessments of students will be made (i.e., standardized tests);

(k) developing a district improvement plan with a requirement that site-based councils present improvement plans to the board for comment and input;

(l) establishing school attendance districts within the general school district;

(m) setting district-wide goals;

(n) managing all financial and business practices;

(o) complying with state and federal laws that address such issues as safety, discrimination, and wage and hour laws that must be administered on a district-wide basis; and

(p) complying with federal and state laws requiring uniform standards, such as legal due process rights or search and seizure (Kentucky School Boards Association, 1995; *Boone County v. Busher*, 1996).

Authority of Site-Based School Councils

Generally, school councils are given statutory authority to adopt policies governing curriculum, instructional practices, staff and student scheduling, discipline, and classroom management. School councils also have the authority to determine which textbooks, materials, and student services will be provided for a particular school (KRS 160.345 [2] [G] and [i]). The council is limited by the funds allocated to it by the local board of education. Notably, the authority of site-based school councils does not include actually administering discipline, either to students or school personnel. In addition, while councils can determine the number of persons to be employed in each classification within a school, it cannot determine the compensation of particular employees. However, a waiver request may be made, whereby the state board can grant authority to a local site-based council to perform functions not usually granted to it by statute.

Specifically, the role of a site-based council under the *Boone County* decision includes adopting policies for—

(a) determining the curriculum;

(b) assigning staff time;

(c) assigning students to classes and programs;

(d) determining school day and week schedule within school calendar set by the local board;

(e) determining use of school space;

(f) planning and resolving issues regarding instructional practices;

(g) selecting and implementing discipline and classroom management techniques—including defining responsibilities of students, parents, teachers, counselors, and principal (but a council cannot expel a student);

(h) selecting extracurricular programs; and

(i) developing procedures consistent with local board policy for determining alignment with state standards.

The entire statutory framework contains one important theme: decentralizing decision-making authority to actively involve all participants in the school system, giving everyone the opportunity to contribute to the educational process. The language of KRS 158.645 overwhelmingly reflects this intention in the following passage:

> The General Assembly recognizes that public education involves shared responsibilities. State government, local communities, parents, students, and school

> *employees must work together to create an efficient public school system. The cooperation of all involved is necessary to assure that the desired outcomes are achieved (Boone County v. Bushee, p. 812).*

Thus, the essence of the Kentucky Supreme Court decision in the *Boone County* case is that a local site-based council does not have to submit its annual plan for local board review and approval. The local site-based council has clear, specific, and unique authority to act, but only as a *policy-making* body.

Community Priorities Missing from School-Based Decision-Making Councils

by David L. Keller, Executive Director
Kentucky School Boards Association

The full impact of the *Boone County* decision has yet to be felt. However, that can be expected to change as school councils become increasingly aware of the provisions of the 7-2 decision by the state's highest court.

Even after such a relatively short period of time, there is already ample anecdotal evidence that school-based decision-making councils are (a) operating completely independently without oversight from anyone, (b) operating without the guiding framework of school board policy reflecting community priorities, and (c) making decisions that are not always in the best interests of either the school or the students.

Some examples of this anecdotal evidence include council decisions to drop advanced placement programs despite opposition from parents; to change schedules in ways that seriously weakened well-established cocurricular programs; to conduct final examinations in ways that sparked parental concern; and to reward students for doing well on the KIRIS test in ways that sometimes represent the questionable use of school funds.

These examples represent only a few of the council decisions that are causing increasing concern in communities and among the elected representatives of communities—that is, local school boards.

Kentuckians Voice Concern and Support at Education Summit

This spring, more than 100 citizens representing nearly two dozen groups inside and outside the education community came together to discuss their hopes and concerns about Kentucky's public education system. Sponsored jointly by school board members, teachers, administrators, superintendents, and PTA members, the two-days worth of discussions were described as long overdue in several Kentucky newspaper editorial pages.

These discussions, which included equal representation from the Kentucky Association of School Councils, produced further evidence that many people do not believe that the issue of school governance has been settled satisfactorily. Time and time again, speakers called on the legislature to further clarify the relationship between school-based decision-making councils and boards of education. Many people also expressed concern over the lack of accountability of councils.

These voices did not reflect unanimous alarm or dismay at the situation in the wake of the *Boone County* case. Yet, the message was clear: people believe there is more work to be done by the General Assembly to clarify the exact relationship between councils at individual schools and school boards elected to represent the entire community.

Councils Making Contributions But Community Framework Missing

Let me hasten to add that this is not a blanket indictment of school-based decision making. Councils are accomplishing many positive functions in their schools. Yet, the need persists for more ties to the community's goals for education. The General Assembly's original intention to set up school-based decision making within a district policy framework was wise. School councils have as much need as any other decision-making body for a framework and for checks and balances.

This is particularly true because of the imbalance of parental versus professional input. Since parents are a minority (four educators as compared to two parents) on councils, it is not realistic to expect that their voices will be strong ones in the interest of the other parents and children they represent. Why? Because most parents readily admit that they are reluctant to engage in a spirited disagreement with teachers when these same teachers have control of their children every day. While this intimidation may well be unintentional, it exists nevertheless and is widespread.

Elimination of Community Oversight Disenfranchises Many People

Perhaps the most serious impact of the *Boone County* decision on the governance of schools is the increasing realization by parents and other members of the community, especially the roughly 70 percent of the citizens who are neither employed in our schools nor have school-age children, that they have lost the ability to influence the schools they are paying for.

Members of the community, business leaders, and those concerned with economic development can have input through their board of education on district goals, academic expectations, and curriculum, but under the decision in the *Boone County* case, schools run by site-based decision-making councils are completely free to ignore these concerns. Let me cite just one example.

The Kentucky School Boards Association works with several school districts on strategic planning. The process uses a model that provides for widespread representation of the community in determining the district's long-range direction.

Yet, under the *Boone County* decision, school councils are completely free to ignore the district-wide goals, objectives, and priorities and to go their own way. This troubling circumstance also raises serious questions of equity of educational opportunity in programming between different schools in a district, schools that often have students with differing needs. Again, there is no possibility for a countervailing force at the community level to ensure that students, no matter what school they are in, are provided with equitable learning opportunities.

Weaknesses Can Be Turned Into Strengths

The concept of school-based decision making has much merit, and it does provide a vehicle for increased involvement at the school level. As it is now practiced in Kentucky, its most serious weaknesses are the lack of focus by most councils on learning and instructional issues and the lamentable lack of participation by parents.

Members of Kentucky's local school boards believe that parental participation could be increased if parents were given additional seats on the council. Possibly the focus of councils upon instruction could be increased if councils operated within a broad framework of district-wide policy that reflected the goals and expectations of the community. A change in the statutes will be required for either of these improvements to happen.

Unless a balance is restored between parents and professionals and between the school and the larger community, which owns, pays for, and depends upon the schools, we, unfortunately, can expect more and more taxpayers to ask the question, "Why should we be paying higher taxes to support schools when we have been effectively disenfranchised from setting the ultimate direction of those schools?"

Leadership From Both Boards and Councils Needed

by Susan Perkins Weston, Executive Director
Kentucky Association of School Councils

The *Boone County* decision dealt directly with whether a board of education has the right to approve or reject a school council's school improvement plan, and the Kentucky Supreme Court ruled that boards cannot claim that sort of approval role. In the course of justifying the view, the Court also took a position on a hotly debated related question: Which council policies are required to be consistent with policies adopted by the board? In this issue, the board ruled that two policies, those that deal generally with enhancing achievement and those that deal with some specific types of procedures, must be consistent with board standards, but eight others, including curriculum, instructional practices, and discipline, did not come under such a requirement. With that ruling in place, it is important to look at the substantive room for leadership from both boards and councils.

First, local boards and central office staff can comment on any council policy or plan, and it behooves councils to listen to those concerns at least as closely as they listen to those of other citizens. Under the record-keeping policies each board must have, it may make sense to require councils to provide the central office with copies not only of policies that have passed, but of policies that have been recommended by committees, so that comments can be made in time to strengthen the council's deliberations on those issues.

Second, local board policies can structure councils' planning process. For instance, the board can set a date when the plan is due, a format to be used, and a set of steps for publicizing the planning process. In Fayette County, each council is required to present its plan in a public hearing chaired by a school board member, a process likely to encourage thoughtful plans and organized efforts to explain them.

Third, local board policies still establish some of the most important operating conditions for school councils: selection of the superintendent, the staff evaluation process, the salary schedule, the overall revenue of the district, and the distribution of that revenue between school-level needs and other needs. On each of these issues, councils may have concerns and ask to have those concerns considered, but the board makes the final decisions.

Finally, we continue to struggle to obtain the level of public awareness and engagement we will need for true excellence. A single district-wide campaign to explain the new efforts to improve student achievement can be a tremendous asset to all schools and all councils. My local board of education has recently made public discussion of reform one of its planning priorities for the coming year, an effort that could easily translate quickly into broader parent support at home and enhanced volunteer commitment within the schools.

Councils, like school boards, vary in the energy and thought they bring to their work. In the wake of the *Boone County* ruling, it is important to remember that a dedicated board retains powers that can make a vigorous council far more effective and confront a sluggish council with a vision of student success strong enough to inspire (or embarrass) it into a significantly better effort at school improvement.

SBDM Authority Fine Tuned: The Impact of the Boone County Decision

by Charles W. Edwards, Director
School-Based Decision Making Department
Kentucky Department of Education

The expectations and requirements placed on Kentucky's schools by the Kentucky Education Reform Act of 1990 are massive. The Kentucky General Assembly has mandated the creation of much higher standards than have ever been achieved in our state. Schools that exceed student performance goals will receive cash rewards. Schools that fall short of the expectations will face sanctions.

The Act created the option of school councils at each of Kentucky's schools. Those councils, made up of teachers, parents, and the principal, are charged with adopting policy in prescribed areas that will ensure that the school will meet these standards. This is a method of school governance that had never before been experienced by most of our state.

School councils faced with this responsibility need a clear picture of their authority. The Kentucky Department of Education, and other education-related groups, have spent much time over the past few years responding to school council and school district questions, and studying the statutory language to bring as much clarity as possible.

The *Boone County* decision is the single greatest clarifier of school councils and district roles and relationships. The practical impact of this decision is that school councils do have authority to establish policies and make certain decisions within areas that are clearly stipulated in KRS 160.345. These policies and decisions need not be consistent with local board policy and are not subject to local board approval or oversight. This does not mean that school councils control everything at a school site, nor does it mean that local boards of education have no role in or authority over the school site. Local boards still have a critical role. They are responsible for transportation, school attendance zones, food service, and district-wide administrative services. They are responsible for providing and maintaining buildings and grounds. They hire and evaluate the superintendent. They establish the district salary schedule. They approve the district budget and allocate funds to schools, and they are responsible for working with their school councils to ensure that state specified levels of student performance are achieved.

In most school districts in Kentucky, the decision in the *Boone County* case will not impact the working relationship of school councils and school boards. It simply provides additional clarity to a relationship that is already present. School boards and school councils want student performance to be as high as possible. The *Boone County* decision affirms "who does what" in this pursuit.

Who's the Boss? An Examination of the Hiring Process in SBDM Schools

by V. Wayne Young, Executive Director
Kentucky Association of School Administrators

With the adoption by the General Assembly of the Kentucky Education Reform Act (KERA) of 1990, the hiring process used by local school districts in Kentucky changed considerably. Later legislative enactments brought further change. The most pronounced change has proven to be in schools where school-based decision making (SBDM) has been implemented. Nearly five years after the adoption of KERA, confusion persists among the affected parties regarding roles and responsibilities in the hiring process.

KERA and the Hiring Process

Prior to the enactment of KERA, employment decisions in local school districts were a shared responsibility of the superintendent and board of education. The employment of all personnel required the "recommendation of the superintendent of schools, subject to the approval of the board." In reality, this process was weighted in favor of the superintendent, as the board could withhold its approval only if it determined that the recommended employee was legally unqualified or morally unfit to hold the position.

The enactment of KERA changed the hiring process dramatically. The local board was removed from the process altogether, with the specific exception of hiring the superintendent and the board attorney. It appeared that principals and the newly-created school councils would share hiring authority with the superintendent. The new SBDM statute, KRS 160.345, called for the principal to "select personnel to fill vacancies, after consultation with the school council." The school council was given the authority to select the principal (in the case of a vacancy in that position).

But in reality, the superintendent retained, before and after KERA, the absolute right to recommend applicants for employment. Without the recommendation of the superintendent, no applicant could be considered for employment by a school principal or school council.

Changes in the Law

In 1992, the General Assembly revisited the subject of hiring staff in SBDM schools, and made a simple but profound change in the process. It left intact the superintendent's authority to recommend candidates for the principalship in SBDM schools. But for all other vacancies at schools, recommendation by the superintendent was no longer required. Instead, the superintendent would now be required to submit a list of qualified applicants to the principal, who would make the employment decision after consultation with the council.

56

This seemingly minor change created untold confusion. Some superintendents saw no real difference between recommending applicants and submitting a list of qualified applicants. Some believed that they no longer could recommend candidates for the principalship, but were compelled to submit the names of all applicants to the council. Some councils and principals felt that they were entitled to consider every applicant for every position, without any intrusion by the superintendent.

Recent Developments

Two recent events have brought some clarity to th[illegible]ring situation. The first was a decision by the Kentucky Supreme Court in the *Boone County* case. Although the case was decided on other grounds, the court provided some insight into its views on the division of authority between the various decision makers in Kentucky's system of public education. It said:

> The essential strategic point of KERA is the decentralization of decision making authority so as to involve all participants in the school system, affording each the opportunity to contribute actively to the educational process.

Spurred on by this declaration, the Attorney General issues an opinion analyzing the provisions of KRS 160.345 as they relate to the hiring process at SBDM schools, and defining the respective roles of superintendents, principals, and school councils in the process. In that opinion, the Attorney General stated:

- The superintendent's recommendation cannot be viewed as a condition for employment of nonprincipal positions in SBDM schools.
- Requiring the superintendent to submit a list, rather than to recommend applicants, obviously broadens the list of candidates for employment consideration.
- A qualified applicant is one who meets all statutory and regulatory requirements to hold the position, and who meets any objective criteria set by the board of education.
- The superintendent may not withhold applicants based on his or her own subjective criteria, but may certainly share subjective comments and recommendations with the principal and school council.

Unresolved Issues

This clarification has been received in a generally positive way by all the parties. But not all of the statute's imperfections have been cured. Contentious situations still arise regarding legitimate efforts by superintendents to transfer personnel into SBDM schools. A principal is still faced with the dilemma of being responsive to a council (which selected him) and a superintendent (who can remove him). The law is silent as to who may act when a coach resigns from coaching duties but keeps her teaching job. Superintendents are still uncomfortable about sending to school councils names of qualified applicants, who are unsuitable for some other valid, albeit subjective, reason. For example, a teacher, fired by the superintendent for insubordination, could reapply for his job. As a qualified applicant, the superintendent would be required to submit his name to the principal for consideration for reemployment.

Certainly it is impossible to imagine every difficult scenario that could arise under the current hiring process at SBDM schools. One can only hope that additional clarity is brought to bear as the SBDM process continues to mature.

FOCUS ON INSTRUCTION

Supplement to The Link, Vol. 14, No. 2

NEWS FROM AEL'S CLASSROOM INSTRUCTION PROGRAM

The Classroom Instruction program selects articles that highlight education programs in one state of AEL's Region for each edition. This "Focus on Instruction" looks at what is happening in Virginia. Many thanks to the 11 Virginia educators who contributed articles and information and to Karen Whetzel, VEA representative to AEL's Board, who helped coordinate the development of this issue. The next issue of "Focus of Instruction" will highlight education programs in West Virginia. West Virginia educators who wish to contribute an article should contact Jane Hange, Director, Classroom Instruction program, AEL, P. O. Box 1348, Charleston, WV 25325, before November 6, 1995.

The Poetry Connection: Authentic Learning Coupling Poetry and Photography

by Cathy Horowitz and Aldra Sirott, Teachers
West Springfield High School, Springfield, Virginia

"This is exciting!" gushed Kristen at the opening night reception of **Poetry Connection**, a student photography and poetry exhibit at West Springfield High School in March 1995. "I've never shown my photographs publicly before. It's fun." English students expressed similar sentiments that night about reading their poems in a public forum and seeing their work published in the exhibit catalog.

As photography and English teachers, we wanted our students to have the opportunity to experience the thrill and challenge of an authentic professional assignment where the audience for their work would be someone other than teachers. Together we designed a unit to meet the objectives of both the English 11 and Photography II programs of study and to demonstrate to students the interdisciplinary nature of most professional work.

In September 1994, English students wrote and revised a variety of lyric poems doing self-evaluations and peer critiques, editing, and finally selecting one "to go public." Once the poems were selected, English students paired with photography students whose assignment was to illustrate the poem. Photographers selected a style appropriate to the poem from those outlined in the Fairfax County Public School's Photography Program of Studies (based on *The Master Guide to Photography* by Michael Langford). Students took photographs in pictorial, documentary, abstract, straight, romantic, symbolic, and high art styles. They processed the film, selected the best image, printed and dry mounted the photograph, and created their own museum cards. Photography students also taught the English students how to dry mount their poems. English students interviewed the photographers about their photograph and the creative process and wrote a brief description for the exhibition catalog.

To obtain funding for the dry mounting material, catalog, and exhibit, we applied for grants through the local Parent Teacher-Student Association (PTSA), the National Art Education Foundation, the Virginia Education Association, and the Virginia Commission for the Arts. A student designed the exhibit banner and the invitation for the opening night reception. The school, parents, and the community were invited to the opening reception on March 1 and to the exhibit on March 2 & 3. Students did much of the planning for opening night, such as mailing invitations, providing refreshments, buying and arranging flowers and plants, and scheduling the poetry readings. One student even organized a flute trio to provide background music for the reception. Student poets and photographers were present to answer questions and greet visitors, and English students read their poems.

Although teachers can usually count on parents' positive responses to their children's accomplishments, we were overwhelmed by family enthusiasm for **Poetry Connection**. Many appreciated that we were showcasing the fine arts and that all of our students' work was exhibited. Some expressed surprise at the quality of student work and none remembered any similar opportunity for high school students to nurture and display their visual and verbal creativity.

Teachers brought their classes to view the exhibit and to listen to the poetry readings during the school day. Some used the exhibit to teach writing reviews and poetry, while others used it to demonstrate photographic techniques. One teacher wrote that the exhibit gave her "a new appreciation for the way photography can complement the written word." We feel confident that our student photographers and poets were similarly enriched, even if all they mentioned was the fun and excitement!

For further information on coupling photography with poetry in authentic learning, **contact Cathy Horowitz at West Springfield High School, 6100 Rolling Road, Springfield, VA 22152; 703/451-6403; or at her E-mail address bchoro@aol.com.**

Using Technology for Enhanced Science Instruction

by Karen Whetzel, Library/Media Specialist
Ashby-Lee Elementary School, New Market, Virginia

Using technology can enhance science instruction for all students, but it is particularly important for students who have limited English proficiency or learning disabilities. Students learn best by doing, and elementary teachers know the importance of hands-on science activities to help students learn. Using technology such as videodisks and computers can help students learn basic science concepts as well as problem-solving techniques. Because technology combines visual and verbal information, it helps students learn using a variety of senses.

Videodisk programs such as Optical Data's *Windows on Science* series are being used in place of textbooks in many school systems. Most videodisks come with soundtracks in two languages; students without English proficiency can hear the soundtrack in their native language. Videodisks contain millions of images—from photographs to videoclips—which the teacher can use in science instruction. Instruction with videodisks can be highly interactive; teachers control the presentation so that students can discuss, predict, and hypothesize as they are learning. As teachers develop expertise with videodisk technology, they can create their own computer programs which present the photographs or videoclips they need in sequence. Many times, students can see things on the videodisk that they do not have access to in the school environment—microscopic views, plants and animals that live in other parts of the world, and experiments with materials not considered safe for elementary school students. Because videodisks are both visual and verbal, they help students with different learning styles understand concepts better than reading about it, hearing it from the teacher, or looking at a picture in a book.

Computer programs also offer stimulating experiences for students. Many of the CD-ROM disks now available have soundtracks in several languages. Text on CD-ROM disks, such as those from National Geographic on various science topics, can be adjusted to the student's pace and level. Students can listen as the text is read and click the mouse to hear unfamiliar words pronounced and defined. CD-ROM disks are great for individuals and families as remedial or enrichment instruction. Schools can also buy equipment that allows a CD-ROM disk to be shown on a TV screen for whole-class use.

Telecommunications projects allow students to use computers to do "real" science activities. Through programs such as National Geographic's *Kids Works*, students can collect and analyze data and develop frameworks for problem solving. They can also communicate with other students and scientists about science projects.

Research shows that technology helps elementary students of all ability levels learn science content and develop logical thinking and problem-solving skills (Kirkwood and Gimblett, 1992). Other research findings indicate that telecommunications projects help students develop both scientific concepts and global awareness (Fine, 1992), and that exploring science concepts collaboratively through a computer local area network is both successful and effective for students (Newman, Goldman, Brienne, Jackson, and Magzamen, 1989). Research also shows that technological manipulatives provide more control and flexibility than other hands-on materials for many young learners (Char, 1993). Finally, students using computers and other technology become more independent learners, and prefer technology to worksheets (Vacc, 1991-92).

Technology can help decrease disparity in education; however, lack of technology can *increase* disparity. Educators should work hard to ensure that every student and teacher has access to the latest technology to help them teach science and other subjects in the best ways possible to meet course objectives and accommodate learning style preferences.

Kirkwood, J., & Gimblett, R. (1992). Expert systems and weather forecasting in the 4th and 5th grades. *Journal of Computing in Childhood Education, 3*(3-4), 323-333.

Fine, C. (1992). *Research on the National Geographic Kids Network.* Oakbrook, IL: North Central Regional Educational Laboratory.

Newman, D., Goldman, S., Brienne, D., Jackson, I., & Magzamen, S. (1989). Computer mediation of scientific investigations. *Journal of Educational Computing Research, 5*(2), 151-166.

Char, C. (1993). *Computer graphic feltboards: New software approaches to children's mathematical exploration.* Newton, MA: Educational Development Center.

Vacc, N. (1991-92). A comparison of using a microcomputer, precision teaching, and worksheets to master basic multiplication facts. *Journal of Educational Technology Systems, 20*(30), 179-198.

Other useful resources:
National Geographic Kids Network, 17th and M Streets, Washington, DC 20036, 800/368-2728, for information on telecommunications software and subscription fees for elementary schools and also through National Geographic, *Wonders of Learning CD ROM Library* (science books on CD-ROM, with paperback copies of each book).

Optical Data, 800/524-2481, videodisk programs including *Windows on Science* and *Kinderventures* for the youngest learners.

Minnesota Educational Computing Corporation (MECC), 800/685-MECC (simulations such as Odell Woods, Odell Lake).

Microsoft, 800/426-9400, CD-ROM disks based on the *Magic School Bus*.

For more information about how elementary schools can use technology for teaching science, or for information about the research cited, contact Karen Whetzel, Ashby-Lee Elementary School, 480 Stonewall Lane, Quicksburg, VA 22847; 703/477-2926 or E-mail kwhetzel@pen.k12.va.us.

High Schools That Work: Teamwork

by Bonnie Whitley, Mathematics Chair
William Byrd High School, Vinton, Virginia

Teamwork—team effort and team support—best describes the William Byrd High School initiative in the High Schools That Work (HSTW) program. The William Byrd project received commendations from the HSTW Technical Assistance Team recognizing the team effort at William Byrd. Commended were:

- the implementation and success of the Principles of Technology classes in science;
- the diversity in the makeup of the HSTW team at William Byrd;
- the unique community support provided by an advisory committee;
- the support and commitment of the administration, superintendent, and central office staff; and
- the assistance from business and industry to validate competencies at Arnold R. Burton Technology Center.

The diversity of the HSTW team at William Byrd is apparent in its membership list—two administrators (one from William Byrd and one from the Vocational Technical Center); two vocational teachers from William Byrd; one social studies teacher; one English teacher; two science teachers; two mathematics teachers; a guidance counselor from William Byrd; one special education teacher; and two teachers from the Vocational Technical Center.

The HSTW team meets for one class period each week and for an entire day once every two months. Released time is provided through grant funds. School administration supports the team's need to have regular communication by scheduling a common planning period. During 1994-95, the HSTW Management Plan focused on developing and implementing a science course, Principles of Technology. The HSTW team also informed other members of the William Byrd staff of the project. Members of the HSTW team, other staff, and the supervisor of mathematics for the system visited two schools, York High School in Virginia, and Socastee High School in South Carolina, to observe their HSTW programs.

Other HSTW activities included:

- encouraging integration of instruction by providing common planning periods;
- establishing a ninth grade articulation committee to help with the transition of ninth graders from middle to high school;
- sending teachers and students into various businesses for two days to observe workers;
- paying for school staff members to attend the Southern Regional Education Board (SREB) conference in Nashville;
- establishing an advisory committee; and
- printing a faculty newsletter for HSTW and the minutes of the HSTW meetings.

A unique part of the HSTW program is the advisory committee which consists of seven business people, two students, four HSTW team members, and one middle school teacher. The committee's original role was to give "support to the HSTW team by soliciting volunteers from business groups to provide extra help to students." This role has expanded so that now members visit William Byrd classes to share experiences and discuss careers. Some members attended the SREB conference in summer 1995 as part of the William Byrd HSTW delegation.

In 1995-96, the HSTW team will focus on mathematics and English instruction, continued use of the advisory committee, and development of a program of studies "for rising ninth graders in which students choose a focused vocational or college preparatory sequence of studies."

For more information on High Schools That Work, contact Richard Turner, principal, William Byrd High School, 2902 Washington Avenue, Vinton, Virginia 24179; 703/890-3090.

Students Write on the Contours to Become Published Authors

by Gayle Corrado, Teacher
Sandy Hook Elementary School, Strasburg, Virginia

with contributions from Eric Gorton
Daily News-Record, Harrisonburg, Virginia

If you have ever written a story, you are an author. If you have drawn a picture for your story, you are also an illustrator. We have more than 200 authors and illustrators in the fifth and sixth grades at North Fork Middle School, located between Mount Jackson and New Market in Virginia. It only takes a few cuts, some folds, and some color to turn an ordinary piece of paper into something that will open the mind of a child. The next step is to get students to discuss what they see in the contour they have created and then write about it. When the writing is pasted to the form, the result is a contour book.

Contour books are but one of the writing process activities we use to create and then "publish" books at North Fork. Through reading and sharing their work with other students and community members, students publish or make public their revised and edited final products. While writing process activities continue throughout the school year, spring 1995 yielded an opportunity for our young authors to reach a wider audience.

A contest of contour books at North Fork yielded 40 best books that were displayed for one week at a Harrisonburg Little Professor Book Center. While their works were on display, the students spent an hour as authors, discussing their work with customers and parents in the book store and experiencing the recognition that professional authors enjoy. The book store owner Ronni Kahn provided the display opportunity to congratulate the students on their creativity—"a product any book store values."

We followed the five-step writing process, employed throughout the school, to write our books. If you'd like to get students motivated to write and to improve the quality of their work, consider using the process below:

1) Prewriting comes first. Our authors have an idea list that they keep in the front of their writing folders. They pick a topic from the list and begin to think through what they want to write about. Webbing, making lists, free writing, outlining, four squares, or story boarding help at this point.

2) Drafting is step two. Students take their prewriting ideas and put them into story form. The goal is to just get your words down. Here the story comes to life! This step is focused on content and good ideas.

3) Revision is next as students ask questions about their work. Does my writing say what I want it to say? Will my reader understand what I mean? Do I need to add more information? This is also time to fine tune a character.

4) Editing comes next. Students check for spelling, punctuation, and grammar. We also look for interesting words—to replace "nice" or "fun." While editing is hard work, it is important for refining the final product.

5) In publishing, students make their writing appealing in presentation. Final drafts (with illustrations, where appropriate) are readied. To complete the process, students read and share their books or stories with each other and with other members of the school and community.

For further information on contour books or the writing process, contact Gayle Corrado, Sandy Hook Elementary School, 162 Speckley Loop, Strasburg, VA 22657; 703/456-8281.

Using an Integrated Curriculum Increases Motivation and Learning and Keeps Students Singing

by Chadwick Blackwell, Teacher
Elkton Elementary School, Elkton, Virginia

Are you looking for an active, integrated learning unit that involves the whole class in higher-level thinking, problem-centered learning, and personally relevant content? Go find your school's music teacher! That's exactly what I did for my fifth grade class during spring 1995 at Elkton Elementary School. Beth Harter and I designed a unit that eventually shaped how we teach and what we thought about the pedagogical profession. The early American history unit integrated all subjects, with music and the arts as the centerpiece.

Our method of integration included oral readings, trade books, library research, creative and technical writing, and class discussion. The integrated unit was successful as students quickly learned the new content.

Students' primary investigations focused on three major subcultures of North America: Native Americans, Euro Americans (early European explorers), and African Americans. Serendipitously, the racial composition of the class included four Native Americans, three African Americans, and thirteen students of European descent, a diverse multicultural distribution of students for a rural Virginia community.

After two months of team teaching the unit, and coplanning before and after school and during lunch, Beth and I were convinced that the students had a strong command of the content, were fervently involved with the curriculum, and were motivated to dig deeper into the history and music of early American peoples. To share their new knowledge with parents, peers, and the community, the students created a musical using the ideas, music, and culture of early America.

Working in committees, the students crafted scenes, songs, and dialogue for "Pieces of History," the title of their musical. They utilized a list of questions about early American history that they had generated before the unit began: I wonder how it really felt to be a Native American? What language did they use? If we didn't have explorers, where would we be now? Would religious freedom be alive in a democracy that thrives? and Why were the Africans brought to America as slaves? As students became choreographers, directors, scene writers, actors and actresses, and production managers, they took on real-world tasks, creating with purpose and performing for actual audiences. By the time the curtains were drawn on the opening performance, our students had completed original pieces of music and designed a total of four scenes.

Students' fortitude and devout commitment to this project, from start to finish, amazed both teachers. The quality of their work served as testimony to their high degree of motivation. Not only did they gain a greater understanding of history, but they also assigned personal meaning to its study. For example, as the chorus to their theme song they penned, Searching the past through others' eyes, so we can see both sides. Comparing then to now, the way we were, the way we are now. Changing generations of people, paving the way. Understanding the past gives us meaning today. Yes, understanding the past gives us meaning today.

Allowing inquiry to occur naturally, using an integrated approach, is a freeing experience for both teacher and pupil. Thoughts, questions, and answers flow independently and at varying rates—enabling students to use thinking and individual learning styles to successfully meet the goals and objectives of the assignment, lesson, or unit. After our second in-school performance, another fifth grade teacher said with a big grin, "WOW! All of your kids have total ownership of this production and the material. I know that is true because I couldn't tell who the 'bright' kids were." Need I say more?

For further information about this integrated approach to teaching history through music, or for a copy of *Creating a High Motivation Classroom: Five Easy Steps to Success*, contact Chadwick Blackwell, Elkton Elementary School, 302 B Street, Elkton, VA 22827; 703/298-1511.

"Hey, Look Mom, I'm a Scientist," High School Mentors Spark Elementary Science Interest

by Joseph Murray, Teacher
Amherst County High School, Amherst, Virginia

What can be purchased for under $750 that can benefit the greatest number of disadvantaged elementary students? Buying a fleet of computers with a library of software would be nice. Classroom sets of calculators, VCRs, videos, and encyclopedias would come in handy—and probably cost more. But how much would it cost to "purchase" 30 role models for 58 fifth graders? Answer: about $750 for transportation between schools, project display boards, lab demonstration kits, "how-to" science-fair guide books and a video, and recognition certificates, in short, everything necessary to introduce inquiry learning and to launch a successful science fair. An Equity Mini-Grant from AEL's Eisenhower Consortium for Math and Science made possible the collaborative project between elementary and high school students and faculty.

Elementary school teachers face a number of obstacles when they attempt to let students **perform** science experiments rather than **observe** demonstrations. "Doing science" is frequently complicated by dwindling resources and an increasing number of students who require one-on-one attention. In the past, the opportunities for a Central Elementary School student to conduct an independent research project were practically nonexistent. Without an annual science fair, the students didn't even have a way to display their work.

The goal of the "Hey, Look Mom, I'm a Scientist" project was to get 58 fifth graders to DO science—to demonstrate to themselves that they can scientifically test an idea or problem that they propose. The encouragement and instruction they received in this January-April 1994 cooperative project at Central Elementary School came from the 30 Amherst County High School students (20 seniors and 10 freshmen and sophomores) in advanced biology or advanced science research classes.

After two hours of training in two inquiry lessons using science kits (artificial blood typing and osmosis/diffusion), the high school students partnered with fifth graders at the elementary school. The role of the high school student was to facilitate discovery learning as the fifth graders performed the tests and formulated explanations. Hypothesis formation continued as the high school students helped elementary students explore science fair project ideas and plan related experiments. Although year-end standardized testing forced postponement of the Central Elementary School science fair until fall 1995, the cooperating high school and elementary teachers plan to begin another year of collaboration early in the 1995-96 school year. One fifth grade teacher plans to make the scientific method her first science unit to "fire up" the kids for the mentorship science-fair project.

While mentors, mentees, and teachers alike learned more about blood types and osmosis/diffusion, many unintended benefits were also realized. The fifth graders, impressed that high school students would take time to work with them, began asking how soon their mentors would return and choosing science books during free reading time. The high school mentors were invigorated as they worked with the elementary students and rediscovered why they liked science when they "were young." The experience was also humbling for these advanced placement and "straight A" students as they dealt with the uncertainties of teaching. Since the project's end, several have changed career plans to become teachers.

If you are interested in organizing a similar mentor/mentee science-fair project, the following suggestions may be useful:

- Modify text excerpts or instructions for activities and demonstrations for use by high school mentors and their elementary school mentees;
- Begin early to communicate with high school and elementary administrators, both to inform them of project requirements—transportation, training and tutoring time, student responsibilities, and materials—and also to excite them to become advocates for the project;
- Communications are also essential with participating elementary teachers and with teachers whose students you share. Providing as much advance notice as possible on times students will be away from class is important. Your school's librarian may also be a source of additional references/resources.
- High school students need to understand the rationale, objectives, the content of the lessons, and how to work with younger students. Involve them early and provide training, practice, and time to become comfortable with the lesson and with their students.

Somewhere between elementary school and graduation, children's curiosity about why things happen the way they do can disappear. The high school mentors donated their time and shared their own science fair with their mentees. In doing so, they sparked an interest in science in some receptive fifth graders and rekindled their own excitement about learning.

For further information on mentor-mentee inquiry learning and cooperative science fairs, contact Joseph Murray at Amherst County High School, P.O. Box 410, Amherst, VA 24521 or at E-mail address jmmurray@pen.k12.va.us.

◆◆◆◆

If you would like to propose a program to involve traditionally under represented students in math and science, phone for an AEL Eisenhower Consortium Equity Mini-Grant application (800/624-9120 or 304/347-0400 in Charleston, WV).

"Constructive" Science and Math Students Benefit from AEL Equity Mini-Grant

by Robert Hatheway, Teacher
Pennington Middle School, Pennington Gap, Virginia

If you would like to actively involve your students in learning but have few resources, creativity can make a few dollars go a long way. With funds from a small Equity Mini-Grant from AEL's Eisenhower Consortium for Math and Science, I purchased materials so that my 24 sixth graders at Pennington Middle School could make their own math & science manipulatives. The project developed not only their math and science knowledge but also their skills in measurement and wood-working. Our journey to a local sawmill to get materials let students explore a new career as well as connect with adults in their community. The project began when our school could not provide the $300 for commercially produced tangrams, ancient Chinese puzzles consisting of seven shapes that together make a square. Tangrams help students learn about the principles of geometry. The Mini-Grant funds bought cedar and paid for students' transportation to the saw mill to purchase it. Using the school's agricultural shop and equipment, students, with teacher supervision, measured, cut, sanded, and painted the cedar to make their own tangrams, then used them to conduct geometry competitions.

In another unit on the human body, students used modeling clay to mold internal organs. To protect their desk tops from the clay, they created "board tables." First, they mathematically estimated their plywood requirements, then they walked to town, purchased the plywood, and cut and varnished the board tables. Finally, they created color-coded models of the internal organs, using the clay and their science books as references.

Both projects were interdisciplinary, combining knowledge and skills from math, science, art, and wood-working in a series of motivating lessons. Not only did this year's class benefit from the tangrams and board tables, but next year's students can use them as well.

For further information on creating tangrams, body system models, or board tables, contact Robert Hatheway, Pennington Middle School, 201 Middle School Drive, Pennington Gap, VA 24277-1799; 703/546-1453.

Fortifying Knowledge of American History

by Vicki Lane, Teacher
Fort Blackmore Elementary School, Fort Blackmore, Virginia

Fort Blackmore Elementary is nestled at the foot of High Knob Mountain in southwest Virginia, an area surrounded by Appalachian history. Fort Blackmore was used as a fortification during clashes with the Indians in the late 1700s but no extant description of the fort existed. As a teacher, I knew that the students at Fort Blackmore Elementary knew little about the area's past. With other faculty members, I applied for and received a Virginia Education Association (VEA) Mini-Grant to build a fort on the playground.

The process began with a call to a local sawmill that donated all the wooden slabs for the fort's sides. The Southwest Virginia Logging Association donated about 30 locust logs that were placed three feet in the ground. The wooden slabs were then nailed between the logs.

Community and school personnel as well as students provided many hours as volunteers. Construction began in September 1994 and was completed in April 1995.

On April 20, Fort Blackmore Elementary held Fort Day in celebration of completing the fort and closing the year-long unit on local history and culture. Native Americans participated by telling their background and sharing different tribal dances. Activities included stagecoach rides, storytellers, crafts, apple and pear butter making, artifacts, and music played on gourds, dulcimers, and other instruments.

A war reenactment was the highlight of Fort Day. Local residents and members of the sheriff's department dressed up as Indians and attacked the fort, capturing many "pioneers"—school personnel and community members. The students will never forget this event—a simulation of a real attack in 1777!

Another honor was bestowed on Fort Blackmore Elementary from the Sons of the American Revolution, whose representative on Fort Day presented the school and volunteers with certificates for rebuilding Fort Blackmore.

The students, faculty, and community have developed a sense of pride in our heritage stemming from this project. The school and community have formed a bond. Students and citizens know more about their history and heritage and are proud of their accomplishments. The community and Fort Blackmore teachers hope that Fort Day can become an annual event.

For further information on this local history and culture project, contact Vicki Lane, Fort Blackmore Elementary School, Route 1, Box A6, Fort Blackmore, VA 24250; 703/995-2471.

On A Roller Coaster To The Top: Interdisciplinary Activities at an Amusement Park

by Jeff Duncan, Teacher
Culpeper County Middle School, Culpeper, VA

Amusement parks are interesting to most eighth graders. Students who are learning disabled, academically at-risk, or just need motivation to do well in science can benefit from a project that includes a trip to an amusement park!

In an interdisciplinary math and science unit at Culpeper County Middle School, students gained skills in data analysis by sampling bags of candy and running "hot-wheels" down roller coaster tracks. The roller coaster designs used rubber tubing and steel balls in a hands-on application of the concepts of potential and kinetic energy. Analysis was assisted by the use of a Vernier Software photogate kit and a graphing software package called "The Cruncher." Students used these tools to present data better and to get immediate readings on speed and velocity during experiments. An AEL Eisenhower Consortium Equity Mini-Grant of $724 made possible the software purchases and "roller coaster" construction materials.

Small-group activities further tested physical science concepts during a statewide field-day event at Kings Dominion Amusement Park in Doswell, Virginia. Student groups competed to build the tallest free-standing paper tower, float the most pennies in an aluminum foil barge, and span the longest distance with six wooden blocks. Culpeper students advanced to this state competition, where they out-performed high school teams!

The hands-on, inquiry-based science and math activities allowed all students to shine and provided many long-term benefits as well. The special activities and trip to the park kept students motivated and interested in math and science throughout the unit. Additionally, student knowledge and skills increased, as measured by pre- and post-interest surveys and content exams. Finally, the confidence students gained by presenting data carried over to high performance in English and other subjects.

For more information on active learning in math and science, contact Jeff Duncan, Culpeper County Middle School, 14300 Achievement Drive, Culpeper, VA 22701; 703/825-4140.

Increase Teacher Decisionmaking and Family Involvement Through Restructuring

by Melva S. Potts, Assistant Principal
Marion Primary School, Marion, Virginia

In December 1993, Marion Primary School (Grades K-3) was awarded a Virginia Department of Education (VDE) Staff Development Grant for School Improvement to involve faculty in a "study, plan, implement" model for restructuring to make instruction more developmentally appropriate. A custom-designed college class, conferences, and school visitations provided valuable staff development. Marion teachers learned about whole language, alternative assessment techniques, cross-grade curriculum development, collaborative teaching, and cooperative learning. The faculty initiated programs to increase family and community involvement and to promote team spirit among teachers. Most importantly, Marion teachers created an atmosphere in which teachers exercise instructional decisionmaking to plan together and to utilize innovative instructional strategies to improve teaching and learning.

In summer 1994, the Marion faculty received a Virginia Education Association (VEA) Restructuring Award based on our achievements from the VDE grant. This greatly appreciated additional funding was needed to continue and to expand existing programs. Two Family Fun Nights were the focus of one popular program in 1994-95. More than 150 parents and students participated in reading, math, and science games that were made that evening then taken home.

Other Marion programs to strengthen the home/school/community link include classes at night for parents provided by community agencies and the "Lunch Buddies" program, where workers from a local industry eat lunch and share stories with students.

The VEA restructuring funds also provided for an alternative assessment committee whose members studied, attended conferences on, and established guidelines for the use of portfolios.

The results of Marion Primary School's restructuring efforts can best be viewed by a visit to any classroom. Students are actively involved in their learning and student-made materials are displayed. Teachers enjoy working together with more team spirit and involvement in decision-making.

For more information on restructuring for developmentally appropriate instruction, contact Melva S. Potts, Marion Primary School, 1042 Stage Street, Marion, VA 24354; 703/783-3021.

Rising to Meet New Challenges Through Restructuring

by Pat Bolt, Teacher
Glenwood Elementary School, Danville, Virginia

Glenwood, a K-4 school in the Danville City school division, is located in an older neighborhood with few children. Most of our students ride buses from low-income rental housing areas or from a federal housing project. They have many special needs that were not being met in the traditional classroom setting. Therefore, restructuring was seen as an important step forward.

The teachers, with input from parents and the community, designed a completely restructured teaching-learning program that is bringing about increased success for Glenwood students. Many students enter school with a limited vocabulary and rarely speak in complete sentences, so we adopted a whole language saturation approach while continuing to emphasize phonics. We use trade books, magazines, and newspapers in thematic units, and we concentrate on communications skills to improve vocabulary. Our thematic units are based on children's innate interest in science; they integrate academic skills across content areas into logical learning blocks.

We established TAG (Teaching Across Grades) groups, composed of students and teachers from kindergarten to second grade, to provide a sense of family and stability. TAG groups improve behavior as well as academic progress. An outgrowth of TAG in 1994-95 was multiage classes. This environment allows children to progress at their own developmental pace and to help and learn from each other, increasing academic achievement across all ability levels.

The TIES (Ties Influence and Encourage Students) program brings in positive male role models to have lunch with our students on Fridays. The men talk with the students, build friendships, encourage good attendance, and discuss the importance of staying in school. This year a few women joined the men to show girls that women should and do hold executive positions in Danville.

Each year a group of fourth graders is trained to serve as peer mediators. They help students define conflicts, seek alternative solutions, learn problem-solving skills, and become more responsible for their own actions. Participation is voluntary, but many seek training to keep minor conflicts from escalating to major ones, to stay out of trouble, and to gain social acceptance.

Teachers who are decisionmakers in schools must trust each other. We find that even small changes frequently mandate other changes. This leads to sharing expertise, feeling responsible for every student, and striving to provide the best possible learning setting for every student. Our teachers work out the master schedule, choose lead teachers, set our own agendas for group planning, and make financial decisions concerning instructional funds.

Glenwood's restructuring project was assisted for two years by a Virginia Education Association Restructuring Award that enabled the continuation of the program described above. The school was further recognized by *Redbook* magazine as one of "America's Best Elementary Schools" for turning around weak programs and bolstering the learning environment through innovative strategies. As the school's enrollment continues to grow (five modular units were added this past year), restructuring efforts will continue to evolve.

For further information on restructuring programs at Glenwood Elementary, contact Pat Bolt, Glenwood Elementary School, Halifax Road, Danville, VA 24540; phone 804/799-5129 or fax 804/799-6545.

Authentic Learning Across the Disciplines, New Publication Provides Sample Units and Assessments

Today, teachers are realizing the importance of helping students to become lifelong learners who construct meaning from all they experience. ***Interdisciplinary Units With Alternative Assessments: A Teacher-Developed Compendium*** illustrates what can be accomplished when teams of teachers cooperatively redesign curriculum, instruction, and assessment to help students understand the connections necessary in learning. **Fifteen field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers.** The topics range from global studies to the Civil War to tall tales and fables and many more. The units range from one week to twelve weeks. Each unit notes the topics addressed, concepts/skills introduced, grade or level appropriateness, duration, type of interdisciplinary models used, list of unit activities, and type of alternative assessments used. A sample activity and alternative assessment are described in detail in each along with the teacher developers' recommendations for implementation.

Findings from elementary and secondary teacher teams in this year-long, research and development project cosponsored by the Virginia Education Association and AEL provide additional insights to those planning units and changing classroom assessments. Discussion of several models of interdisciplinary curriculum and alternative assessments is included. Bibliographies on both topics complete the useful guide.

To obtain a copy of *Interdisciplinary Units With Alternative Assessments: A Teacher-Developed Compendium*, (141 pages, typeset), contact: Distribution Center, Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325. Payment of $12.00 must accompany the order. VEA members may obtain a copy from Helen Rolfe, Instruction and Professional Development Director, VEA, 116 S. Third St., Richmond, VA 23219; 800/552-9554.

ERIC/CRESS Publications

American Indian Education

— *Indian Nations At Risk: Listening to the People.* Patricia Cahape & Craig B. Howley (Ed.). 1992. 110 pp. $10.00

— *Joining the Circle: A Practitioners' Guide to Responsive Education for Native Students.* Agnes Grant & LaVina Gillespie. 1993. 62 pp. $10.00

— *Native Education Directory: Organizations and Resources for Educators of Native Peoples of the United States and Territories* by ERIC/CRESS and Native Education Initiative of the Regional Educational Laboratories. 1993. 93 pp. ~~$10.00~~ now $5.00.

Mexican American Education

— *Doing Our Homework: How Schools Can Engage Hispanic Communities.* Andrea B. Bermúdez. 1994. 92 pp. $12.00

— *Thorough and Fair: Creating Routes to Success for Mexican-American Students.* Alicia Sosa. 1993. 93 pp. $10.00

Migrant Education

— *Educating Undocumented Children: A Review of Practices and Policies.* John Wiltshire Carerra. 1989. 42 pp. ~~$7.00~~ now $3.75

Outdoor Education

— *In Our Own Words: Community Story Traditions to Prevent and Heal Substance Abuse.* Michael Tierney. 1992. 63 pp. ~~$10.00~~ now $5.00

— *Lasting Lessons: A Teacher's Guide to Reflecting on Experience.* Clifford E. Knapp. 1992. 118 pp. $10.00

— *Using the Outdoors to Teach Language Arts.* Rebecca R. & Frederick A. Staley. 1995. 99 pp. ~~$9.00~~ now $3.00

— *Using the Outdoors to Teach Mathematics.* Wilson R. Payne & Stephen F. Austin. 1995. 65 pp. $5.50

— *Using the Outdoors to Teach Science: A Resource Guide for Elementary and Middle School Teachers.* Wilson R. Payne. 1995. 49 pp. $5.50

— *Using the Outdoors to Teach Social Studies.* Clifford Knapp. 1996. 95 pp. $5.50

Rural Education/Small Schools

— *The Distance Education Handbook: An Administrator's Guide for Rural and Remote Schools.* Bruce Barker. 1992. 60 pp. ~~$10.00~~ now $5.00

— *Managing Smallness: Promising Fiscal Practices for Rural School District Administrators.* Deborah Inman Freitas. 1992. 74 pp. ~~$10.00~~ now $5.00

— *Rural Education Directory: Organizations and Resources* by ERIC/CRESS. 1993. 65 pp. ~~$10.00~~ now $5.00.

— *Systemic Reform in Six Rural Districts: A Case Study of First Reactions to the Kentucky Education Reform Act of 1990.* Pamelia Coe & Patricia Kannapel. 1991. 99 pp. $10.00

Other

— *A Parent's Guide to the ERIC Database: Where to Turn With Your Questions About Schooling (Revised Edition).* Craig Howley, Phyllis Stowers & Patricia Cahape. 1992. 91 pp. ~~$10.00~~ now $5.00

— *Overcoming Risk: An Annotated Bibliography of Publications Developed by ERIC Clearinghouses.* Wendy Schwartz & Craig Howley. 1991. 94 pp. $10.00

6/95

Briefs for Parents (free)

These typeset articles are ready to **pasteup** in your **newsletter, newspaper, or periodical.** Clearly and briefly, each article addresses an education topic of concern to parents. They are available **free** (limit one copy of each set per order). To order, check (✓) the set(s) you wish to receive.

1995 Briefs for Latino Parents

___ Six articles in Spanish

___ English translation

Shipping Information

All prices include shipping and handling.

___ I have enclosed a check or money order (drawn on a U.S. bank) made payable to ERIC/CRESS in the amount of $__________ (U.S.) for the items selected.

___ I have enclosed an institutional purchase order (No. ______________) in the amount of $__________ (U.S.) for the items selected, in lieu of prepayment.

Name ______________________________

Address ______________________________

____

Telephone ______________________________

(in case we have a question about your order)

ERIC/CRESS
P. O. Box 1348, Charleston, WV 25325-1348

ERIC/CRESS Digests—free; check (✓) the Digests you want and fill out the form on other side.

AMERICAN INDIAN/ALASKA NATIVE EDUCATION

— *American Indian/Alaska Native Learning Styles: Research and Practice* by K. Swisher (1991), EDO-RC-91-4

— *American Indians and Alaska Natives in Higher Education: Research on Participation and Graduation* by D. M. Pavel (1992), EDO-RC-92-2

— ● *Assessment for American Indian and Alaska Native Learners* by Roger Bordeaux, Ed.D. (1995) EDO-RC-95-6

— *Blueprints for Indian Education: Improving Mainstream Schooling* by Robin A. Butterfield (1994), EDO-RC-94-2

— *Blueprints for Indian Education: Languages and Cultures* by William Demmert (1994), EDO-RC-94-3

— *Blueprints for Indian Education: Research and Development Needs for the 1990s* by P. Cahape (1993), EDO-RC-93-02

— *The Case Method in Teacher Education: Alaskan Models* by J. Kleinfeld (1990), EDO-RC-90-6

— *The Current Condition of Native Americans* by H. Hodgkinson (1992), EDO-RC-92-7

— *The Emerging Role of Tribal College Libraries in Indian Education* by D. M. Pavel (1992), EDO-RC-92-4

— *Fighting Alcohol and Substance Abuse Among American Indian and Alaska Native Youth* by N. Gale (1991), EDO-RC-91-8

— *Supporting Emergent Literacy Among Young American Indian Students* by W. R. McEachern (1990), EDO-RC-90-3

— *Unbiased Teaching About American Indians and Alaska Natives in Elementary Schools* by F. Pepper (1990), EDO-RC-90-8

— *Using Literature by American Indians and Alaska Natives in Secondary Schools* by A. Grant & L. Gillespie (1992), EDO-RC-92-6

MEXICAN-AMERICAN EDUCATION

— *Bilingualism and the Academic Performance of Mexican-American Children: The Evolving Debate* by E. Garcia (1990), EDO-RC-90-9

— *Facilitating Postsecondary Outcomes for Mexican Americans* by Judith LeBlanc Flores (1994), EDO-RC-94-4

— *Hispanics in Higher Education: Trends in Participation* by J. Chahin (1993), EDO-RC-93-05

— *Integrating Mexican-American History and Culture into the Social Studies Classroom* by K. Escamilla (1992), EDO-RC-92-9

— *Making Education Work for Mexican Americans: Promising Community Practices* by A. Sosa (1990), EDO-RC-90-2

— *Mexican Immigrants in High Schools: Meeting Their Needs* by H. Romo (1993), EDO-RC-93-08

— *Use of the Spanish Language in the United States: Trends, Challenges, and Opportunities* by S. Santiestevan (1991), EDO-RC-91-2

MIGRANT EDUCATION

— *Family Links and Parental Involvement in Migrant Students' Education* by N. F. Chavkin (1991), EDO-RC-91-3

— *Health Problems Among Migrant Farmworkers' Children in the U.S.* by G. Huang (1993), EDO-RC-93-01

— *Literacy Education for Adult Migrant Farmworkers* by K. J. Bartlett and F. G. Vargas (1992), EDO-LE-91-05

— *Migrant Farmworkers and Their Children* by P. Martin (1994), EDO-RC-94-7

— *Migrant Students Who Leave School Early: Strategies for Retrieval* by A. Salerno (1991), EDO-RC-91-7

— ● *Restructured Migrant Education Program: Old Themes and New* by A. Wright (1995), EDO-RC-95-1

OUTDOOR/EXPERIENTIAL EDUCATION

— *Changing Schools Through Experiential Education* by P. W. Stevens & A. Richards (1992), EDO-RC-91-13

— *Experiential Learning of Mathematics: Using Manipulatives* by R. Hartshorn and S. Boren (1990), EDO-RC-90-5

— *Improving Evaluation in Experiential Education* by B. Hendricks (1994), EDO-RC-94-8

— ● *Outdoor Education and Troubled Youth* by Dene S. Berman and Jennifer Davis-Berman (1995) EDO-RC-95-5

— *Outdoor Education Directory: Organizations Involved in Outdoor Experiential Education* (1993)

— *Thinking in Outdoor Inquiry* by C. E. Knapp (1992), EDO-RC-92-3

RURAL EDUCATION

— *The Academic Effectiveness of Small-Scale Schooling (An Update)* by Craig B. Howley (1994), EDO-RC-94-1

— *Adult Literacy Programs in Rural Areas* by S. Farrell (1990), EDO-RC-90-7

— *Capital Outlay: A Critical Concern in Rural Education* by J. Hunter & C. Howley (1990), EDO-RC-90-1

— *Charting New Maps: Multicultural Education in Rural Schools* by J. Ramsey Oliver & C. Howley (1992), EDO-RC-92-1

— *Cultivating Resilience: An Overview for Rural Educators and Parents* by Mary Finley (1994), EDO-RC-94-5

— *Developing Supplemental Funding: Initiatives for Rural and Small Schools* by R. Carlson (1993), EDO-RC-93-4

— *Efficient Financial Management in Rural Schools: Common Problems and Solutions from the Field* by D. Inman-Freitas (1991), EDO-RC-91-8

— *Funding Rural, Small Schools: Strategies at the Statehouse* by D. Verstegen (1991), EDO-RC-91-10

— *Integrated Services: A Summary for Rural Educators* by M. R. [illegible] (1993), EDO-RC-93-09

— ● *Middle Level Education in Rural America* by John W. Wiles (1995) EDO-RC-95-7

— ● *National Data for Studying Rural Education: Elementary and Secondary Education Applications* by Gary Huang (1995), EDO-RC-95-2

— *Recent Trends in Rural Poverty: A Summary for Educators* by G. Huang & C. Howley (1991), EDO-RC-91-1

— ● *The Role of Rural Schools in Rural Community Development* by Bruce A. Miller (1995) EDO-RC-95-3

— *Rural Philosophy for Education: Wendell Berry's Tradition* by P. Theobald (1992), EDO-RC-91-12

— ● *Rural School Consolidation and Student Learning* by Jim Fanning (1995) EDO-RC-95-4

— *Trends and Options in the Reorganization or Closure of Small or Rural Schools and Districts* by F. Lutz (1990), EDO-RC-90-11

— *What Can I Become? Educational Aspirations of Students in Rural America* by T. Haas (1992), EDO-RC-91-11

SMALL SCHOOLS

— *Small Scale and School Culture: The Experience of Private Schools* by G. E. Conway (1994), EDO-RC-94-6

— *Successful Instructional Practices for Small Schools* by C. Reck (1990), EDO-RC-90-12

— *Teaching and Learning in the Multigrade Classroom: Student Performance and Instructional Routines* by B. Miller (1991), EDO-RC-91-6

OTHER

— *School Completion 2000: Dropout Rates and Their Implications for Meeting the National Goal* by C. Howley & G. Huang (1991), EDO-RC-91-9

● published 1995

Programs and Policies Offer Ways to Prevent Student Violence

Educators seeking violence prevention programs and policies to implement in their schools can choose from many described in a guide published by the Northwest Regional Educational Laboratory.

Researchers Robert Linquanti and BethAnn Berliner suggest that the most appropriate programs and policies for a school depend on its particular needs, resources, and safety goals.

Educators most concerned with responding to emergencies and restoring safety might be interested in developing crisis management plans. In other schools, conducting unannounced locker searches, using metal detectors, surveying trouble areas with closed-circuit television, and stationing police officers on campus may be more appropriate.

In situations not as dire, educators might consider implementing programs that teach prosocial behaviors and skills. Conflict resolution programs, for example, have students work cooperatively to make fair decisions and solve problems peacefully. Multicultural programs try to ease racial and ethnic prejudice, which are often at the core of violence.

Some curricula emphasize students' taking responsibility for their actions and caring for one another. Instruction may also focus on building students' moral reasoning and decision-making skills.

Long-term preventions are sometimes criticized as out of the school's purview. However, "No school or district can long afford to ignore these kinds of approaches if it aims to develop a comprehensive strategy to go beneath the roots of much student violence and begin to build a solid base of protection and prevention," stress the authors.

To that end, it's important to see students as a resource and give them opportunities to help each other—through activities such as peer tutoring programs—and help society—through, for example, community service programs—assert the researchers.

Ordering information: *Rebuilding Schools as Safe Havens: A Typology for Selecting and Integrating Violence Prevention Strategies* is available from the Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204-3197 (site order no. HL-195-AR, 57 pages, $7.30 prepaid).

Condition of American Education Revealed in Annual Report

The National Center for Education Statistics recently released *The Condition of Education 1995*. This annual report looks at 60 indicators that, taken together, present a snapshot of the health of American education. It includes data on enrollment, student achievement, curricula, the transition from school to work, revenues and expenditures, school climate, staffing and salaries, degrees conferred, and tuition.

According to the report, significantly more students are taking difficult courses, math and science test scores are up, and the dropout rate is declining. Highlights of these and other findings follow:

- **High school students are taking harder courses, especially in math and science.** Between 1982 and 1992, the percentage of high school graduates taking the core courses recommended in *A Nation at Risk* (1983) increased sharply, from 13 to 47 percent. This increase was broadly based, with increases observed for both sexes and in all racial/ethnic groups.

  More students are taking algebra, geometry, trigonometry, and calculus—courses emphasized in many recent school reform efforts—as well as advanced science courses, including chemistry and physics. For example, the percentage of high school graduates who took geometry increased from 48 to 70 percent between 1982 and 1992; the percentage of graduates who took chemistry increased from 32 to 56 percent.

- **The mathematics and science proficiency of students has increased.**

Between 1982 and 1992, the mathematics and science proficiency scores of 17-year-olds on the National Assessment of Educational Progress (NAEP) increased 9 and 11 points, respectively, on each assessment. This is roughly equivalent to an additional year of learning in high school.

Although proficiency scores in reading and writing have not shown similar increases, U.S. students compared favorably to those in other countries in an international assessment of basic reading literacy in 1991-92.

Even though the percentage of students taking the Scholastic Aptitude Test (SAT) has increased eight points since 1983, the average mathematics score has increased and the average verbal score has remained stable.

- **More high school graduates go to college immediately after high school, even though college costs continue to rise relative to family income.**

Between 1980 and 1993, the proportion of high school graduates going directly to college increased from 49 to 62 percent. Most of this increase was in enrollments in four-year colleges and universities.

Between 1980 and 1993, tuition, room, and board at public institutions increased from 10 percent to 14 percent of the median family income. This increase was larger for low-income families than for high-income families. Over the same time period, tuition, room, and board at private institutions rose from 22 to 39 percent of the median family income.

- **The U.S. population compares favorably with other countries with regard to educational attainment.**

In 1992, the percentage of 25- to 34-year-olds who had completed at least secondary education (high school in the U.S.) ranged from 42 percent in Italy to 91 percent in Japan. In the United States, 87 percent of this age group had completed high school.

The percentage of 25- to 34-year-olds who had completed higher education (a bachelor's degree in the U.S.) ranged from seven percent in Italy to 23 percent in both Japan and the United States.

A higher percentage of young women had completed higher education in the United States (23 percent) than had their counterparts in other industrialized countries (12 percent in Japan and 11 percent in Germany).

The Condition of Education is produced annually by the National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education. *The Condition of Education 1995* is available from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954; phone 202/512-1800; fax 202/512-2250 ($34.00, 518 pages).

Reports Look at State Financing for Education and Other Children's Services

Earlier this fall, The Finance Project, a nonpartisan policy research group, released three new reports on state financing for education and other children's services.

- *State Investments in Education and Other Children's Services: Fiscal Profiles of the 50 States.* This study uses 43 indicators to profile each of the 50 states' need for education and other children's services (indicated by factors such as school enrollment and child poverty rates), ability to pay (fiscal capacity to provide services), willingness to pay (fiscal effort being made to support such services), and patterns of spending on education and other key health, welfare, and social services.
- *State Investments in Education and Other Children's Services: The Fiscal Challenges Ahead.* This report is a cross-state analysis of factors affecting spending and states' ability and willingness to respond to the changing demographic, economic, and policy context.
- *State Investments in Education and Other Children's Services: Case Studies of Financing Innovations.* This study examines the experiences of seven states that have anticipated key demographic and economic shifts and launched creative initiatives to cope with tougher fiscal environments by improving public financing and making government work better and more efficiently. Among

numerous states that have become laboratories for public finance reform, the states profiled include California, Kentucky, Michigan, North Carolina, Oregon, Vermont, and Wisconsin.

These reports enter the public discussion at a time when policymakers in Washington, governors and other state officials, educators, frontline service providers, and advocates for children and families are struggling to assess how ready states are for the changes that block grants and reductions in federal aid may bring. Though many states are in the best financial condition they have been in for years, changing demographic and economic conditions, as well as the changing federal policy landscape, are expected to increase pressure on state budgets for education and other supports and services for children and families. Taken together, these reports paint a picture of the fiscal and budgetary challenges states will face with growing school enrollments and larger responsibility for meeting the needs of low-income families with children—challenges made more difficult by the prospects of slower economic growth, a changing revenue base, declining federal aid, and a political climate that is hostile to higher taxes.

For more information, contact The Finance Project, 1341 G Street, NW, Washington, DC 20005; 202/628-4200, FAX 202/628-4205. The reports are available at no charge while supplies last.

Teacher Forum and Teleconference—Listening, Reflecting, Acting • November 12-14, 1995

The *1995 Goals 2000 Teacher Forum and Teleconference* is designed to inspire teachers to get involved in local and state reform efforts, and heighten policymakers' awareness of the needs and expertise of teachers.

Sponsored by the U.S. Department of Education, the focus of the 1995 forum is professional development. The department invites teacher input on its strategies to support and promote high quality professional development. The department sponsored teacher forums in 1993 and 1994. The 1995 forum is designed to include other teachers who can participate in their own communities via satellite, in addition to those who will meet in Washington, D.C.

You can participate in the teleconference and teacher forum if you have access to a room with satellite capabilities and a telephone. Some options for participation include:

- **Organize a districtwide conference.** Invite teachers, administrators, and community leaders to your own forum where local experts can speak about issues most important to your community, and the group can join the teleconference when appropriate.
- **Plan a small group meeting.** Gather several of your colleagues to participate in the teleconference and hold focus groups between satellite sessions.
- **Videotape the teleconference for future use.** Arrange to videotape the teleconference and use portions at professional development sessions or staff meetings.

To be a full participant in this event:

- **Register by calling 1-800-USA-LEARN** (no registration fee). Receive information on arranging your own forum and get help with the technical details.
- **Find a room with satellite capabilities,** often called a "downlink site." Any school with distance learning capabilities should be able to participate. If your school is not equipped, call your local community college, university, or local chamber of commerce.
- **Arrange for telephone access.** A toll-free telephone number will be provided for your use. Most sessions include question-and-answer time.
- **Record your local sessions and mail them in.** Mail written summaries of your focus group discussions to the department for inclusion in the final report.

Call 1-800-USA-LEARN for more information.

The Quarterly Sampler—
Some of the Best From ERIC/CRESS

Throughout the year, the ERIC Clearinghouse on Rural Education and Small Schools reviews thousands of articles and documents for possible inclusion in the ERIC database. In addition to rural education and small schools, ERIC/CRESS specialty areas include American Indians and Alaska Natives, migrant education, the education of Mexican Americans, and outdoor education.

All of the resources listed below are now available in microfiche or paper copy (usually both). Readers can order any of the resources directly from ERIC Document Reproduction Service (EDRS), 7420 Fullerton Road, Suite 110, Springfield, VA 22153-2852; 800/443-3742 (nationwide, including VA).

Telephone orders may be charged to your VISA or Mastercard. When you call, simply give the "ERIC Document Number" (for example, ED 316 366) to the EDRS representative. You may also use the toll-free number to have EDRS calculate the price for a mail order, and send in your order with a check. If you are in a hurry, ask EDRS about FAXing paper copies to you. The cost of FAX transmission, plus a modest surcharge, will be added to your order.

If you are interested in other information within the scope of ERIC/CRESS, or if you would like to have Clearinghouse staff conduct a free search of the ERIC database on a particular topic, call User Services at ERIC/CRESS, 800/624-9120, from anywhere in the nation. You can also reach the ERIC/CRESS coordinator of services and acquisitions, Berma Lanham, on the Internet: lanhamb@ael.org.

The Condition of Education in Rural Schools. ED 371 935. Joyce D. Stern, Office of Educational Research and Improvement, Programs for the Improvement of Practice.

This report focuses on the status of rural education and is intended to provide information to education researchers, policymakers at the federal and state levels, and others concerned about issues in rural education. Specifically, the goal is to increase federal policymakers' attention to rural education problems, promote improvements in rural schools, and stimulate further research on rural education. This report documents how rural conditions are sufficiently different from urban ones to warrant being examined independently, and it endorses the hypothesis that a single set of public policies may not adequately address educational issues in rural versus urban settings. National data, mainly from surveys by the National Center for Education Statistics, are synthesized covering the following topics: (1) economic and demographic context of rural education, (2) location and characteristics of rural schools and school districts, (3) relationship between the rural school and its community, (4) policies and programs benefiting rural education, (5) profiles of educators in rural schools, (6) effects of education reform in rural schools, (7) public school finance policies and practices affecting rural schools, (8) assessment of student performance in rural schools, (9) education and work experiences of rural youth, and (10) the future of rural education. The report contains numerous data tables and a section describing statistical data sources and methodology.

An Overview of Distance Learning and Telecommunications in Rural Schools. ED 365 502. Paper presented at the Annual Conference of the National Association of Counties (58th, Chicago, IL, July 16-20, 1993).

Technological developments of the past decade have increased the potential of distance learning and telecommunications to help rural schools overcome disadvantages of remoteness, geographic isolation, lack of specialized staff, and limited program offerings. Classroom-focused distance learning is distance insensitive and involves transmission of a teacher's lessons from a host classroom to multiple receiving classrooms in distant locations. Network-focused distance learning, on the other hand, is both distance and time insensitive and involves use of electronic databases, electronic bulletin boards, or electronic mail. Classroom-focused distance technologies and applications include (1) electronic field trips; (2) audio-graphics programs (one-way transmission of computer graphics plus two-way telephone communication); (3) interactive satellite television programs; and (4) two-way interactive television systems linking several schools. Network-focused services usually involve acquisition of information from large electronic databases or electronic bulletin boards, or communication among users via electronic mail. It is estimated that over 14,000 electronic databases are available to U.S. computer users, with over 5,000 available online. Databases and on-line services of particular interest to educators include ERIC (accessible via Internet), ERIC/CRESS On-line, National Distance Learning Center On-line, America Tomorrow Leadership Information Service, American Indian Science and Engineering Society Electronic Network, Special Net, CLASSMATE and Classroom Instruction Program (accessible through DIALOG), statewide networks, and government-sponsored bulletin boards. The potential of Internet as a telecommunications resource for K-12 schools is discussed.

Meeting the Needs of At-Risk Learners in Rural Areas: Challenge for the 1990s. ED 365 501. Illinois University, Urbana. College of Education; National Center for Research in Vocational Education, Berkeley, CA.

Approximately 25 percent of the U.S. population is in rural areas and about 10 million students are enrolled in rural schools, accounting for 12,000 of the 15,000 schools in the country. Although rural communities and their schools are quite diverse, certain characteristic economic, cultural, and social factors create large numbers of "at-risk" individuals. Barriers to effective programs and services for rural at-risk learners include (1) lack of exposure to occupational diversity, limiting the career development process; (2) family opposition to moving away, limiting job opportunities; (3) economic barriers to comprehensive career-preparation curricula; (4) geographic isolation; (5) high unemployment; (6) lack of adult service providers, making transition difficult; (7) transportation problems; and (8) shortage of qualified staff. On the other hand, rural communities have a number of service-delivery advantages related to school-community intimacy. Vocational programming for rural at-risk students can be improved through recommended strategies for coordinated career development practices, vocational assessment that takes advantage of all available personnel and resources, provision of support services, and provision of programming to facilitate school-to-work transition. The quality of vocational preparation and transition services for at-risk students depends upon the following critical components: curriculum content, instructional delivery; support services; administrative policies; intra- and interagency collaboration; labor market projections; skill acquisition and evaluation, and follow-up activities.

The Use of Peer-Based Support in Rural Settings to Effect Curriculum Renewal. ED 363 489. Northwest Regional Educational Lab, Portland, OR.

Resources to support curriculum renewal in small rural schools are severely limited. This handbook reports how five professional teacher networks expand available resources through the collective efforts of network members. The networks are Big Sky Telegraph (Montana), Alaskan Teacher Research Network, Bitterroot Teachers' Network (the Idaho Foxfire network), Lane County Science and Mathematics Teachers' Cadre (Oregon), and the Washington Council of Teachers of Mathematics. Teachers reported that these networks had significant positive impact on curriculum renewal in five areas: (1) local input and sense of ownership, (2) development of materials and approaches with high classroom utility, (3) meeting state curriculum standards, (4) remaining current with new curriculum and instructional developments, and (5) support and follow-up for classroom innovations. Networks also reduced isolation and provided teachers with the professional benefits of collegial relationships, support for individual classroom practices, and access to field-tested materials and information. The organization of networks varied in level of formality and structure. However, teachers clearly were the decision makers within networks. Operational funds were a necessity and came from various sources such as conference fees, dues, grants, and indirect support from colleges and universities. All networks had analyzed the need for network services before beginning operations. The handbook contains worksheets for teachers considering network membership.

ANNOUNCING—A Regional Conference
Making REAL Change Happen: A Potpourri of Proven Practices

November 17-18, 1995 • Louisville, KY

AEL's fall conference truly has something for everyone. The event will feature practices that are field-tested, R&D initiatives from the nation's Regional Educational Laboratories. As conference host, AEL has invited all 10 Labs to send presenters who will share their knowledge and expertise about real school change.

In addition to receiving a wealth of information, participants will be able to network with practitioners, researchers, parents, and community members to learn from the wisdom that comes both from best practice and from recent research.

Everyone is invited—K-12 educators from both public and private schools, department of education staff, professional education association staff, parents and community members, school boards, local school council members, business representatives, teacher educators, and anyone else interested in what's new in education.

A conference brochure is included as an insert in this issue. **If you need more information** about the conference, please contact Janis Augustine, conference coordinator, at AEL.

Conference brochure inside!
Hotel reservation deadline—November 1, 1995.
Conference registration deadline extended to November 8, 1995.

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a master on white paper.

Nonprofit
Organization
U.S. Postage Paid
Permit No. 2560
Charleston
West Virginia
25301

The LINK
AEL
Post Office Box 1348
Charleston, West Virginia
25325
Address Correction Requested

Telephone
304/347-0400
800/624-9120
304/347-0487 (FAX)
aelinfo@ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Wohl

OERI

BEST COPY AVAILABLE

The Appalachia Educational Laboratory, Inc., is a private, nonprofit corporation. AEL works with educators in ongoing R & D-based efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia and operates the Eisenhower Math/Science Consortium for these same four states. It also operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement, U.S. Department of Education. This publication is produced with funds from OERI contract number RP91002002. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the education communities of research and practice

Volume 14, No. 3 • Winter 1995

AEL more than 25 YEARS OF SERVICE To Educators in Kentucky, Tennessee, Virginia, and West Virginia

Reflections on Success— Clients Tell How AEL Helps Make Change Happen

As 1995 draws to a close, AEL's current five-year contract to serve as a Regional Educational Laboratory does likewise. As we prepare for the next five years that will take us into a new century, it might be a good time to reflect on the rich experiences of these past few years and the products of that work. The stories that follow highlight clients' experiences with AEL as a Regional Educational Laboratory. If they cause you to think of similar "success" in your dealings with AEL, give us a call. Sometimes we're not aware of the full range of the effects of our involvement with the Region's educators. And, yes, if you don't view your story as a success, let us know about that, too. We can learn from our mistakes as well.

Documenting Change: AEL Plays Vital Role in Kentucky

As education change takes the country by storm, a small group of researchers in Appalachia has been acting as a "weather station."

Every state in the nation has been touched in some way by education reform, but few have tackled it as aggressively as Kentucky. There, authorities are implementing the Kentucky Education Reform Act of 1990 (KERA), a monumental effort designed to raise standards for all children.

"It's massive," says Penney Sanders, director of the state legislature's Office of Education Accountability. "We literally started from scratch . . . . We've left no stone unturned."

Thus, reform watchers everywhere have their eyes on the Bluegrass State. Uniquely positioned as a monitor of KERA's progress is AEL, where a small group of researchers has been studying the reform's implementation since 1990.

Sanders says state-level decisionmakers monitor the reform's progress and ask: "What's working and what's not?" AEL's Kentucky policy study helps them answer these questions.

For the past five years—almost since KERA was born—AEL researchers have been visiting schools in four rural Kentucky districts. There, they conduct interviews, observe teachers and classrooms, talk to parents, sit in on meetings, and generally immerse themselves in the school community. Their long-term, qualitative study yields solid information about ground-level efforts to implement state-mandated reform.

"I think one of the areas in which AEL is so

[continued on page 2]

In this issue:

RESEARCH NOTES

Primer Introduces Performance Assessments for Mathematics, Science, p. 9

Communication from School Increases Parents' Confidence and Support for Kids' Learning, p. 9

Information, Framework Help Leaders Select, Integrate Improvement Programs, p. 10

Teacher Education Programs Are Updating an Old Process to Improve Science Teaching, p. 10

Several Testing Experts Argue Against Using High-Stakes Tests to Drive School Improvement, p. 11

INSIDE AEL

Future Holds Array of Diverse Services for AEL Clients, p. 8

Results of AEL School Survey on Inclusion, p. 8

Now you can find AEL on the Internet! p. 12

Minicatalog of AEL Products Inside!

RC02117

valuable is longitudinal studies," says Sanders. "State government is just not in a position to do that kind of work."

AEL's neutrality is seen as another advantage. Cindy Heine, associate executive director of the Prichard Committee, a powerful citizens group created to advocate for change in Kentucky education, says, "I think AEL's observations are very perceptive. I trust them. The fact that AEL is not attached to the state department of education is very important. They're seen as outside, objective observers."

Bonnie Brinly, an education committee staff member at the Kentucky Legislative Research Commission, agrees. "It's especially helpful to have an independent evaluator gathering information about what's happening in the field." She says that education committee members in the legislature "use AEL's information and experience in committee meetings and to generally inform us about what's happening" at the local level.

The fact that AEL is not attached to the state department of education is very important. They're seen as outside, objective observers.

The task of monitoring KERA, like KERA itself, is immense. The state's reforms do more than set higher learning standards for students: they require those standards to be met by every student in the system. Under these circumstances, measuring student progress becomes vital. Beyond such measures, however, is evidence of how teachers and administrators are responding to widespread change. This kind of information—gathered by AEL in surveys and interviews—"is starting to drive programs," says Sanders.

State Senator David Karem, majority floor leader, was instrumental in crafting the reform. As cochair of the curriculum committee of the Task Force on Education Reform in 1989, Karem was present at the "birth" of KERA. He values AEL's periodic reports of findings, published as "Notes from the Field." An early issue discussed local response to the KERA-mandated Family Resource Centers and Youth Services Centers, ensuring that students in low-income schools receive health, counseling, and social services to help them overcome barriers to learning. "When we designed the reform, we felt that piece had the potential to be one of the most controversial parts of the package. AEL's work allayed fears about this wonderful program, took a lot of heat off the centers, and gave them a lot of credibility," explained Karem. "The report was particularly helpful, not only because it contained factual information, but it included good anecdotal information as well."

Sanders says, "The Appalachia Educational Laboratory produces well-researched and well-documented data." She adds, "It can be depended upon for solid work."

AEL Helps Families and Schools Connect

"Mommy, we're having a family fun night at school and you and Daddy have to wear your pajamas!"

This invitation for parents to share the fun of a pajama party may be one of the most unusual requests a kindergarten child ever took home from school. But families in rural Sussex County, New Jersey, have become accustomed to unusual events since their schools began using *Family Connections*, a series of weekly guides aimed at helping schools and parents become partners in the education of young children. For example, one school regularly hosts Family Fun Nights. The pajama party theme was designed to encourage kindergartners' families to read aloud to their children, especially at bedtime.

Designed by staff of AEL's Rural Excel program, *Family Connections* offers educational activities that allow parents to spend time and have fun learning with their children. The colorful, four-page take-home guides have found their way into more than 85,000 homes in 45 states, coast to coast.

"Parents' responses have been overwhelmingly positive," says Bob Childers, director of the AEL program that produces *Family Connections*.

Family Connections was born of a desire to help parents understand just how children learn. Each four-page issue offers a brief, easy-to-read message for parents—concerning such topics as the importance of reading aloud, how children learn through play, or using the public library. Activities inside the guides are educational and fun for both the parents and the children. They use materials commonly found in most homes and require little preparation by parents. A read-aloud selection can be found in every issue as well.

"We strive to make them as easy to use as possible," says Childers. "We avoid mention of seasons so they can be used year-round. And the fact that they can be used in any order gives teachers more flexibility. They're using them in summer programs, too."

Research shows that children benefit in many ways when parents become involved in their education. These children learn more in school, are less likely to drop out, and are more likely to become successful adults.

Research also tells us, however, that while parents may want to be involved in their children's learning, many aren't sure how to go about it. Although *Family Connections* is a useful tool for all parents, it's especially useful for parents who find that getting involved in their children's education remains a tough assignment.

"Our first issues of *Family Connections* were field-tested in five school districts in eastern Kentucky," Childers remembers. "We were pleased with the response we got."

Kentucky Department of Education staff were so impressed with the reactions from parents and teachers, they bought 20,000 sets and made them available to the state's programs for four-year-olds. Such programs are now required for at-risk youngsters in Kentucky schools. But teachers and parents know that *Family Connections* works with any young child. "And teachers throughout the state continue to order them," says Childers.

Duane Dolber, principal at Sistersville Elementary School in West Virginia, was equally impressed. He put a notice in the local paper offering *Family Connections* to families of children who would be entering kindergarten the following fall. Hoping for a big response, he ordered copies for 50 families; he got 80 requests.

Family Connections is available in two sets, one for kindergarten children and one for preschoolers. A classroom that orders either set receives a large package: enough to distribute weekly guides to 25 families for the entire school year. Each set costs $150 for 30 weeks running—which amounts to a total of $6 per child.

"We made the price reasonable so that classes can afford them," Childers says. "But when you think about the investment in the research that led to their development . . . there's no way a commercial company could market them at this price."

The staff at AEL have become accustomed to hearing from satisfied customers. Says one parent: "*Family Connections* gives me interesting ways to communicate with my children. It helps open my eyes to their needs."

Kay Rowe, a Head Start director in Gallipolis, Ohio, says the families with whom she works are always on the lookout for the new issue.

"They ask about them if they don't get home on the day they're expected," she writes.

Nowhere, however, have the learning guides received a more enthusiastic audience than in New Jersey. There, events inspired by *Family Connections*—like the kindergartners' pajama party—have been known to draw 90 percent attendance.

"They come in droves," said one startled teacher. "We have parents, grandparents, aunts, uncles, brothers, and sisters. And they all know what's in the guides. They love them!"

Childers says that one of the most frequently asked questions about *Family Connections* is, "Are they available in

***Family Connections 1* (preschool) and *Family Connections 2* (kindergarten) were used in 45 states and available to more than 65,000 families nationwide during FY 91-95.**

Family Connections 2

Straight Talk With Your Child

BEST COPY AVAILABLE

Spanish?" Today the answer is "No," Childers says with a smile, "but we're working on that. Ask me again in six months."

Students Learn When Teachers Ask the Right Questions

At a certain time of the day, kindergartners at J. E. Moss Elementary School in Nashville beg their teacher for a favorite activity.

"Can we do the bird thing?" they ask.

What has them so excited is a "round-robin" discussion strategy, in which the children take turns asking and answering questions about the stories they've read in class. Aside from being a favored "fun" exercise, the round-robin is helping these students become more involved in their lessons and, as a result, they learn more.

Teachers at J. E. Moss learned to use the round-robin and other proven learning strategies through an innovative professional development program developed at AEL. QUILT—Questioning and Understanding to Improve Learning and Thinking—is helping educators at all levels improve their questioning techniques.

Going back to the time of Socrates, the best teachers have understood the power of good questioning to stimulate students' minds. QUILT is the result of AEL's systematic examination of this process and identification of those questioning techniques that work best. AEL has used its R&D capability to develop QUILT as an effective, practical program for teachers to help students learn, question, and think.

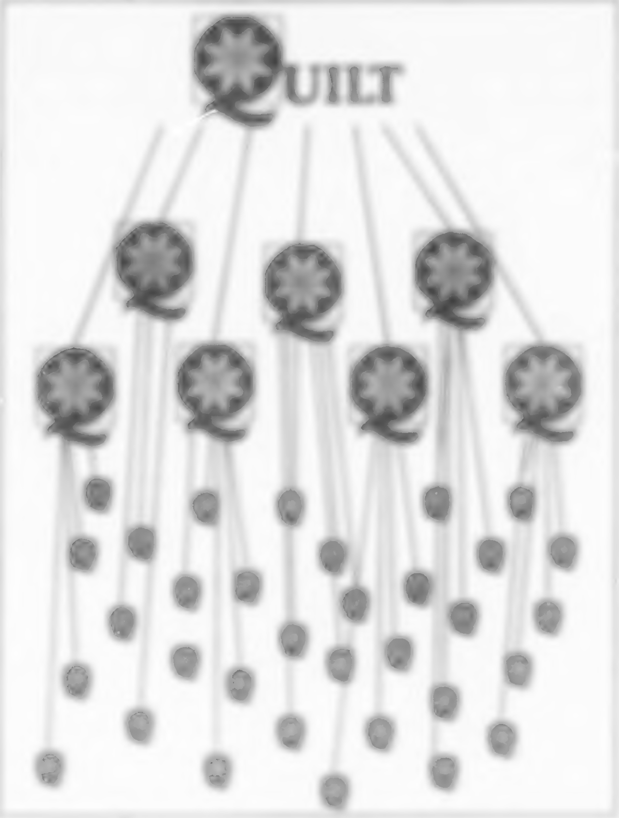
Since the first session, QUILT's training-of-trainers approach has been aiding school districts everywhere to develop the capacity for reform at minimal cost. AEL staff train cadres of local teachers, who then train others in their schools, districts, and states.

Martha Butler, the principal at Moss, says she can see how QUILT has improved teaching techniques among the teachers at her school. "QUILT helps teachers take a look in the mirror," Butler says, calling the professional development program "a total approach to total school improvement."

Butler says QUILT has helped her teachers—especially new ones—learn "what good teaching looks like."

Current research supports her observation. A four-state field test involving 1,200 teachers in 40 schools shows that teachers who participate in QUILT training know more about effective questioning techniques, and they're using what they've learned to change classroom prac-

During 1991-95, AEL conducted 7 QUILT Training-for-Trainers events. 282 trainers from 11 states and 6 territories were trained to lead the QUILT program. These trainers trained 3,789 teachers in 86 implementations of QUILT.



tice. The training program affects student performance as well: students in QUILT classrooms are asking more questions that reflect better thinking.

The QUILT program has come a long way since its early days. In 1987, AEL developed a workshop package in response to requests from teachers in the field for more training in classroom questioning techniques. AEL staff initially pulled together teachers and administrators from five Kentucky school districts to help develop and pilot-test the program. It soon became the most popular workshop in each of AEL's four states (Kentucky, Tennessee, Virginia, and West Virginia). Because short-term training activities give teachers too little support to change classroom practices, the workshop was expanded into a multiyear program. It offers participating teachers a strong support network based on schoolwide collegiality and collaboration.

A 12-month, large-scale field test has proven QUILT to be successful, showing that teachers have adopted its techniques that improve student involvement and learning. QUILT received more recent recognition this past year as an exemplary training program from the National Diffusion Network (NDN), the equivalent of a Good Housekeeping Seal of Approval for education programs.

Now, as an NDN developer/demonstrator project, AEL is able to share QUILT with the rest of the nation, helping to improve learning in classrooms from Boston to American Samoa. The discovery that QUILT techniques work well for students with disabilities, for example, has prompted the University of Alabama to use the program to train teachers of students with diverse learning needs. In Pennsylvania, an enthusiastic school board member recognized QUILT's potential to help families solve their communication problems. The community leader has since arranged for his local bank to distribute QUILT flyers in its monthly statements to area families.

Like a good question that opens doorways in the mind, "Questioning and Understanding to Improve Learning and Thinking" is an innovative project that has caught on—and with good reason. For its ability to transform teaching and learning, QUILT represents the best in educational practice.

Chaos to Calm: Community Empowers Parents to Work With Schools

Phyllis Watson remembers how bad things were at Orchard Manor.

"It was in chaos," says the 23-year resident of the urban housing complex in Charleston, West Virginia. "There were drugs, gunshots, and parents running around with no direction or destination."

That was years ago, however.

Since then, Orchard Manor residents have watched their community transform from a dangerous, drug-infested neighborhood into a safe and pleasant place, one that people are proud to call home.

The change began when staff at AEL began working at the manor, the largest public housing community in West Virginia. The contact was initiated through an AEL urban education program called CLUE—Community Liaison to Urban Education.

"We went in to document and create new knowledge about urban education," explains CLUE director Betty James. "We wanted to build a model that the people at Orchard Manor and elsewhere could use for the process of turning these urban communities around. Our program involves underrepresented and disadvantaged parents, community leaders, and community organizations in projects and activities that build skills they can use to help their children succeed in school."

Five years later, Orchard Manor can boast tangible results. The community that once failed a federal test for "safe, decent, and sanitary housing" today enjoys safer, better living conditions for its residents, who take obvious pride in their neighborhood. In 1992, Orchard Manor was honored as one of President George Bush's "Thousand Points of Light"—one of only two such communities in the United States ever to receive the award.

Much of the manor's success is due to work by AEL staff, who performed ongoing training for residents who showed interest in picking up new communication skills. AEL helped introduce people to Robert's Rules of Order, and meetings were conducted accordingly. Residents learned more skills and attended workshops in conflict resolution. Daily interactions at the manor improved—between renters and housing officials, between parents and school officials, and among the residents themselves.

"Better communication has created so many changes here," notes manor resident Virginia Nesmith. "Talking and understanding each other are so important—and necessary."

AEL kicked off its Orchard Manor project in 1991 with a spaghetti dinner that drew more than 100 adults. From that meeting, a formal organization grew—what became the Orchard Manor Resident Management Corporation.

As a nonprofit, the corporation could apply for grant money. Its first grant helped to equip and staff an office. The second helped residents address drug problems in a big way—with the installation of a neighborhood security gate. The corporation established policy and procedures for operating the gate, staffed by guards hired from within the community itself. The gate controlled the comings and goings of nonresidents, thus significantly reducing drug dealing. The corporation will also run the nation's first resident-managed Community Housing Development Organization, an effort to move residents out of public housing and into their own homes.

Through AEL, Orchard Manor parents were also able to attend seminars that gave them valuable skills in dealing with their children, many of whom were at risk of dropping out of school. It wasn't long before these parents were sharing their new skills by leading workshops of their own. The result, according to parent Phyllis Watson, is that "children are studying harder, listening, and applying more of themselves in the schoolwork and bringing home better grades." Watson also notes more single mothers returning to school, and a general rise in self-esteem among all students.

"School attendance has improved," she says, "because the parents have different attitudes about their [children's] learning—such as when to do homework, taking time to listen to the children, and [making sure they're] going to bed at a certain time."

James attributes Orchard Manor's success to AEL's ability to help its residents gain better access to materials and research in urban education.

"This really was the worst housing project in the state," she remembers. "But even the poorest and least educated people can come together and achieve results—if you give them the right tools."

Phyllis Watson agrees, saying both children and parents "have learned how important it is to be educated . . . and not to be 'children at risk' all their lives—or adults at risk."

No longer the residents of a place "in chaos," Watson gives high marks to AEL and its urban education program for "helping us to become a community. . . . We can't thank them enough."

Dissolving Curriculum Boundaries Also Dissolves Teachers' Feelings of Isolation

> *I didn't think I could do it. I am an old-fashioned 'do-it-myself' teacher. But it's great to share responsibilities and cover materials in depth.*

These are the words of a Virginia teacher who is excited about the collaboration taking place among teachers since her school became involved in an AEL project known as Interdisciplinary Teamed Instruction.

An integrated approach cuts across traditional time blocks and subject lines to create a different way of looking at both learning and teaching. Integrating instruction often involves flexible scheduling, allowing longer periods of time for students and teachers to work on ongoing projects. Such scheduling promotes a connected curriculum, encourages even more productive models of teaching, and provides a less fragmented, more thoughtful learning environment.

Rebecca Burns of AEL's Rural Excel program has worked extensively with schools implementing a team approach to curriculum integration. "Dissolving the artificial boundaries that exist between traditional academic disciplines [as well as] between academic and vocational areas may be a necessary first step," says Burns.

However, teachers don't enter integrated instruction simply because they are tired of doing things the same old way. Teachers who have integrated curriculum have participated in sev-

AEL Products & Publications—
A Minicatalog of Resources, 1991-95

This minicatalog contains abstracts of products developed at AEL during the past five years. A product order form is included, which lists titles alphabetically. Visit AEL's Web site (www.ael.org) for information about additional products and publications.

American Indian/Alaska Native Education

Indian Nations at risk: Listening to the people (1992). Patricia Cahape and Craig B. Howley (Ed.)

Commissioned by the Indian Nations At Risk Task Force, the twenty papers describe the condition of education for Native students. Authors of the papers describe programs, policies, methods, and resources that are successful. This anthology presents highlights of eminent writers and educators and information on obtaining the full-length papers. $10, 116 pp.

Native education directory: Organizations and resources for educators of Native peoples of the United States and territories (1993). ERIC/CRESS and Native Education Initiative of the Regional Educational Laboratories

This directory contains more than 400 entries on organizations and resources related to the education of American Indians and other Native peoples of Alaska, Hawaii, the American territories, Canada, and other nations. Sections include post-secondary institutions and federal government programs that have regional offices. $6, 65 pp.

ERIC/CRESS Digests (free):
American Indian/Alaska Native learning styles: Research and practice (1991). K. Swisher
American Indians and Alaska Natives in higher education: Research on participation and graduation (1992). D. M. Pavel
Blueprints for Indian education: Improving mainstream schooling (1994). Robin A. Butterfield
Blueprints for Indian education: Languages and cultures (1994). William Demmert
Blueprints for Indian education: Research and development needs for the 1990s (1993). P. Cahape
Fighting alcohol and substance abuse among American Indian and Alaska Native youth (1991). N. Gale
The current condition of Native Americans (1992). H. Hodgkinson
The emerging role of tribal college libraries in Indian education (1992). D. M. Pavel
Using literature by American Indians and Alaska Natives in secondary schools (1992). A. Grant and L. Gillespie

Curriculum, Instruction, Assessment

ADHD—Building academic success (1995, September). Soleil Gregg

The third in a series of *Policy Briefs* on Attention Deficit Hyperactivity Disorder (ADHD), this brief examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2, 10 pp.

ADHD—New legal responsibilities for schools (1994). Soleil Gregg

A memorandum from the U.S. Department of Education in 1991 clarified schools' legal responsibilities to children with Attention Deficit Hyperactivity Disorder (ADHD) under the Individuals with Disabilities Education Act, Part B and Section 504 of the Rehabilitation Act of 1973. This brief—the first in a series of three on ADHD—explains how both of these statutes and the Americans with Disabilities Act apply to children with ADHD. It defines the responsibilities of schools and state education agencies for locating, evaluating, and educating these children, includes questions for policymakers to ask about providing services, and reviews teacher training and support systems in AEL's four-state Region. $2, 8 pp.

Alternative assessment—Can real-world skills be tested? (1993). Karen Simon and Soleil Gregg

To help policymakers, administrators, and teachers understand how education reform is affecting student assessment, this issue of *Policy Briefs* explains how types of assessment relate to various education purposes, looks at problems with current assessment practices, presents guidelines for developing authentic assessments, and discusses common myths. Finally, it presents state-level authentic assessment initiatives in AEL's Region. $2, 8 pp.

Conversations about authentic assessment (1993).

On this audiotape, experienced educators and nationally recognized assessment experts discuss alternatives to standardized tests—performance-based assessment, demonstrations, projects, and portfolios. They also explain why changing the way schools measure student progress requires a reexamination of the basic aims of education. $10, 90 min.

Dissolving the Boundaries: Planning for curriculum integration in middle and secondary schools (1995). Becky Burns

This publication helps secondary school faculties prepare for curriculum integration through a four-step process: (1) exploring the promises and problems of curriculum integration; (2) identifying boundaries, proposing solutions, and recognizing support for integration within schools and communities; (3) reaching consensus; and (4) identifying and attaining supports and resources needed to design and implement an integrated curriculum. The facilitator's guide provides step-by-step directions for activities, transparency masters, and participant handouts for use in a professional development setting. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10, 87 pp.

Edtalk: Surveying the landscape of state educational assessment programs (1994). L. Bond, with L. Friedman and A. van der Ploeg

Because student assessment programs have been shown to affect how teachers teach and what students learn, they are increasingly being used to leverage school reform. This report, published by the Council for Educational Development and Research and the National Education Association, profiles assessment programs in six states, describes the range of changes underway in 13 states, and presents an overview of assessment programs in all 50 states. $5, 52 pp.

Interdisciplinary units with alternative assessments: A teacher-developed compendium (1995). Virginia Education Association-AEL.

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of two to five teachers from six Virginia schools received training, developed the units and assessments, and field tested them with their students. Over several months, they shared and revised their work and reflected on teacher change. $12, 191 pp.

Lasting lessons: A teacher's guide to reflecting on experience (1992). Clifford E. Knapp

Teachers can turn making, doing, or discovering experiences into meaningful lessons for youngsters. The author says teachers "must help students learn from carefully planned and guided reflection sessions." Examples and scenarios are used to explain cognitive theory and its connection to knowledge, thinking, experience, learning, and transfer; to describe opportunities within outdoor education for the development of high-order thinking; and to present practical guidance in planning reflection sessions. $10, 117 pp.

Linking the disciplines: A holistic approach to curriculum design (1996). Rebecca Burns

Research has shown that the brain is a highly integrated system and that learning is a process of creating networks among its various parts. Integrating disciplines across the curriculum may improve learning by capitalizing on the brain's natural processes. This adaptable workshop package contains everything needed to teach participants how to analyze integrated-curriculum models, plan and teach in teams, and design and implement integrated curricula at their schools. $50, 475 pp.

Making connections II: Four educational perspectives (1991). Kimberly Hambrick, editor

This publication features papers by four experts invited to "make connections" among their distinct educational methodologies at a Roanoke, Virginia, November 1990 symposium. The four methodologies include integrating dynamic assessment and instruction, whole language learning, philosophy for children, and reciprocal teaching. $4.50, 35 pp. (OP 035)

Marginal learners: Identification, prevention, and intervention (1995)

Each of the six content modules in this workshop package is designed as a 3- to 4-hour workshop that can be presented individually or as part of a series sequenced from identifying marginal learners through examining and adapting school and district policies and practices to better serve students who have difficulty in the regular classroom. Topics include the needs of marginal learners, proven practices, and planning improvement efforts. $50, 382 pp.

On target with authentic assessment: Creating and implementing classroom models (1996)

This four-part, authentic-assessment workshop package is designed for all educators and education-related professionals interested in developing skills for creating and implementing authentic assessments for classroom use. It helps users understand the rationale, purposes, and characteristics of authentic assessments, and teaches them to analyze, critique, and design authentic assessments and evaluation criteria (rubrics). Individuals may purchase the training manual, which contains all the readings, transparencies, and instructions needed to conduct four, half-day workshops, or they may contract with AEL to provide a two-day, training-for-trainers workshop (at a per-person fee that includes both the workshop and the manuals). $50, 450 pp.

QUILT—Questioning and understanding to improve learning and thinking: A staff development program (Updated annually)

A two-year program that focuses on helping teachers develop effective techniques for using questions in the classroom, QUILT is designed to provide a program for school renewal, a pattern for interactive teaching and learning, and a process for professional staff development. Brochures are available that describe QUILT and summarize the costs and requirements of participating in the program. A yearly calendar of events and deadlines for school districts, individual schools, trainers, and teachers is also available. Request QUILT information. Free.

Understanding and identifying children with ADHD: First steps to effective intervention (1995, September). Soleil Gregg

The purpose of this issue of *Policy Briefs* is to help policymakers understand Attention Deficit/Hyperactivity Disorder (ADHD) and its effects on students. The second in a series, the brief reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2, 8 pp.

Ungraded classrooms—Fail-safe schools? (1991)

Written primarily for policymakers, this issue of *Policy Briefs*, an overview of ungraded classrooms, will also interest superintendents, administrators, and the public. The paper defines terms, identifies six essential ingredients of ungraded primary programs, presents national and organizational support, discusses research findings, and relates tips that promote program success. $2, 4 pp.

Ungraded primary programs: Steps toward developmentally appropriate instruction (1991). Kentucky Education Association-AEL.

In this publication, teachers experienced with ungraded primary programs share practices and recommendations that may help ensure individualized, continuous student progress and prevent failure. It includes descriptions of 19 instructional programs in Kentucky, a review of the literature on multi-age grouping, a bibliography on ungraded primary programs, and case studies of 10 model programs. $7, 50 pp.

Mathematics/Science Education

Alternative assessments in math and science: Moving toward a moving target (1993). Virginia Education Association-AEL.

A study group of 22 teachers from Virginia elementary, middle, and high schools worked together to create and implement authentic assessment practices in their classrooms. First-year efforts are documented in this how-to guide including literature review; rationale for alternative assessments; bibliography; glossary; criteria for effective assessments; and sample assessments. The effects on student achievement, student attitude, instructional practice, teacher effectiveness, and working conditions are described. $9, 80 pp.

Charmed Particles

The newsletter of the Eisenhower Regional Math/Science Consortium at AEL contains articles about what's happening with national policy and standards related to math and science; what research says about methods, assessment, and curriculum; what's being talked about by legislators, researchers, state departments of education, and college-based teacher educators; what questions are being asked about math/science education; and who is willing to pay for projects. Subscription is free. Contact Eisenhower Regional Math/Science Consortium at 800/624-9120.

Edtalk: What we know about mathematics teaching and learning (1991). Nancy Kober.

This publication deals with (1) student attitudes, (2) everyday relevance, (3) integration with curriculum, (4) cooperative learning, (5) higher order thinking skills, (6) active instruction versus information transfer, (7) gender equity, (8) special needs students, (9) textbooks, manipulatives, worksheets, calculators, computers, (10) standardized tests and alternative assessment methods, (11) international comparisons, (12) teacher expertise, (13) departmentalized instruction, (14) parent attitudes (15) homework, (16) mathematical learning in the home, and, (17) television viewing and mathematics achievement. $5, 69 pp.

Edtalk: What we know about science teaching and learning (1993). Nancy Kober.

The question/answer format of this publication deals with (1) the need for change, (2) systemic reform, (3) essential science learning, (4) attitudes and motivation, (5) equity, (6) instructional methods and materials, (7) assessment, (8) teacher expertise, (9) teacher and community collaboration, (10) parent attitudes and involvement, and (11) business and community involvement. This publication is a collaborative effort between the Council for Educational Development and Research, and the Triangle Coalition for Science and Technology Education. $5, 69 pp.

Facilitating systemic change in science and mathematics education: A toolkit for professional developers (1995).

The purpose of this toolkit is to broaden and strengthen the expertise of individuals who help teachers and schools improve science and mathematics education. It will help users develop a systemic approach to change that ensures equitable access to science and mathematics for all students. Sections discuss effective science and mathematics education, dissemination strategies, professional development, and strategies for change. $45, 378 pp.

Improving science and mathematics education: A summary of analyzed state curriculum frameworks (1993).

Staff from the Regional Educational Laboratories developed this analysis of state science and mathematics curriculum frameworks across the country. This report examines ways in which the term *framework* is being used in science and mathematics education. It also includes a bibliography of research and literature and a list of state science and mathematics coordinators. $8, 117 pp.

Improving science and mathematics education: A database and catalog of alternative assessments, 2nd edition (1994). Regional Educational Laboratories and National Research Centers.

To assist educators in changing assessment to reflect new thinking about curriculum, instruction, and learning, the nation's Regional Educational Laboratories and National Research Centers compiled an electronic database of K-12 assessments in mathematics and science. The catalog, a hard copy of the database, contains descriptions and contact information for numerous alternative and performance assessments. $12.95, IBM or Macintosh.

Improving science and mathematics education—A toolkit for professional developers: Alternative assessment (1994).

This handbook is designed for those working with mathematics and science teachers on alternative assessment. It contains background materials, suggestions, procedures, tools, and activities for evaluating alternative assessments, materials and activities on integrating assessment and instruction, and bibliographies. The chapters are stand-alone information pieces for professional development, workshops, or training, including all materials needed. Activities model effective teaching strategies and incorporate good teaching practices. $38.95, 435 pp.

Increasing student access to mathematics and science: A guide for classroom equity projects (1995).

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. Limited instructional materials, equipment, and/or human resources may prevent classroom projects that address the needs of underserved students. The guide provides a description of projects, tips from teachers, and information on funding sources and proposal writing. $5, 44 pp.

Promising practices in mathematics and science education, and *Mathematics, science, and technology education: Programs that work* (1994).

This two-book set of research-based, effective programs, produced by the National Diffusion Network (NDN) and the 10 Regional Educational Laboratories, will help educators prepare students to meet world-class standards and improve their achievement in mathematics, science, and technology. Teachers can replicate the programs or adapt them to their own needs. NDN facilitators can provide materials, training, technical assistance, and advice on each program. $35, now $7.50, 302 pp.

Systemic reform in mathematics and science: A workshop for schools and communities (1995).

Educators and community members experience learning as it should occur. Information and hands-on activities increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and role of partnerships in reform. Step-by-step guide and videotape highlight legislation and trends. $100 (without training). Contact Eisenhower Regional Math/Science Consortium at AEL, 800/624-9120.

Mexican-American Education

EdTalk: Schools along the border: Education in the age of NAFTA (1995)

This publication informs policymakers about the effects of immigration on education along the 2,000-mile U. S.-Mexico border and beyond. As many new immigrants move to other cities and towns across the country, their migration affects schools everywhere. Consideration is given to schooling issues raised by the passage of the North American Free Trade Agreement in the United States, Mexico, and Canada. $5, 36 pp.

Thorough and fair: Creating routes to success for Mexican-American students (1993) Alicia Sosa

As a group, Mexican-American students enrolled in U.S. public schools have not fared well. The role educators can play in removing institutional barriers includes a discussion of misuse of certain forms of tracking and ability grouping; shortcomings in policies that govern assessment and use of assessment results; and the tendency to overlook special needs of women and minorities in mathematics and science programs. $10, 63 pp.

ERIC/CRESS Digests *(free)*:

Facilitating postsecondary outcomes for Mexican Americans (1994) J. Flores

Hispanics in higher education: Trends in participation (1993) J. Chahin

Integrating Mexican-American history and culture into the social studies classroom (1992) K. Escamilla

Mexican immigrants in high schools: Meeting their needs (1993) H. Romo

Use of the Spanish language in the United States: Trends, challenges, and opportunities (1991) S. Santiestevan

Migrant Education

ERIC/CRESS Digests *(free)*:

Family lives and parental involvement in migrant students' education (1991) N. F. Chavkin

Health problems among migrant farmworkers' children in the U.S. (1993) G. Huang

Literacy education for adult migrant farmworkers (1992) K. J. Bartlett and F. O. Vargas

Migrant farmworkers and their children (1994) P. Martin

Migrant students who leave school early: Strategies for retrieval (1991) A. Salerno

Reauthorized migrant education program: Old themes and new (1995) A. Wright

The migrant student record transfer system (MSRTS): An update (1993) P. Cahape

Outdoor/Experiential Education

Just Beyond the Classroom : Community Adventures for Interdisciplinary Learning (1995) Clifford E. Knapp

The outdoor adventures Knapp has designed are organized around themes such as science, math, social studies, language arts, and others. To help teachers turn these adventures into meaningful interdisciplinary learning experiences, he has included background information, possible outcomes, activities, reflection questions, and performance assessments. The activities—more than 200 of them—are geared for students in grades 4-9, but could be adapted easily for lower or higher grade levels. Knapp explains how this type of interdisciplinary learning relates to historic and current education practice and reform. $12, 108 pp.

ERIC/CRESS Digests *(free)*:

Changing schools through experiential education (1992) P. W. Stevens and A. Richards

Improving evaluation in experiential education (1994) B. Hendricks

Outdoor education directory: Organizations involved in outdoor experiential education (1993)

Thinking in outdoor inquiry (1992) C. E. Knapp

Parent Involvement/Early Childhood

A parent's guide to the ERIC database: Where to turn with your questions about schooling, revised edition (1992) Craig Howley, Phyllis Stowers, and Pat Cahape

The Educational Resources Information Center (ERIC) database is a huge national library of reports, reviews, research summaries, and other materials about education. Publications (some in Spanish and English) on a variety of topics are written in plain language for parents. The guidebook explains what ERIC is, where to find it nearby, and how to use it to learn more about education issues. Toll-free phone numbers for help are included. $5, 82 pp.

Doing our homework: How schools can engage Hispanic communities (1994) Andrea B. Bermúdez

Some American educators have discovered the powerful role parents—including parents who speak little or no English—can play in advancing educational goals. The author provides guidance for educators in understanding the changing role of parents and the persistent barriers to involvement that schools must work to overcome. $12, 91 pp.

Early childhood transitions: Preparing children and families for change (1994)

The result of the work by a study group of West Virginia early childhood educators, care providers, and parent/child advocates, this resource will assist those seeking to establish smooth transitions for children and families in a variety of settings. Effective transition services are identified and described along with a discussion of the obstacles and solutions to providing effective transition services. A directory of service providers in included. $5, 32 pp.

EdTalk: Checking up on early childhood care and education (1995) Ellen Kotlus

This easy-to-use checklist synthesizes the best and most recent information from early childhood research and development.

AEL and ERIC/CRESS Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Use this form to order materials from AEL, as well as from the ERIC Clearinghouse on Rural Education and Small Schools. Check (✔) your selections, and if your order includes items that must be prepaid, please **be sure to enclose the order form and your check in an envelope.**

Vol. 14, No. 3 • Winter 1995

(fold here)

From: (please print legibly)

Name: ______________________

Title: ______________________

Organization: ______________________

Address: ______________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage
Required

DISTRIBUTION CENTER
AEL
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

Descriptions of these products can be found in the Minicatalog included with this issue of The Link.

___ *A case study of the impact of a state-level policy designed to improve rural schools in the state of Vermont* (February 1994), Robert V. Carlson. $7, 46 pp. (OP-036)

___ *A framework for evaluating state policy options for the reorganization of rural, small school districts* (1991), E. Robert Stephens. $15, 94 pp. (OP-032)

___ *A parent's guide to the ERIC database: Where to turn with your questions about schooling*, revised edition (1992) Craig Howley, Phyllis Stowers, and Pat Cahape. $5, 82 pp.

___ *ADHD—Building academic success* (1995, September) Soleil Gregg. $2, 10 pp.

___ *ADHD—New legal responsibilities for schools* (1994) Soleil Gregg. $2, 8 pp.

___ *Alternative assessments in math and science: Moving toward a moving target* (1993) Virginia Education Association-AEL. $9, 80 pp.

___ *Alternative assessment—Can real-world skills be tested?* (1993) Karen Simon and Soleil Gregg. $2, 8 pp.

___ *American Indian/Alaska Native learning styles: Research and practice* (1991) K. Swisher. Free, 2 pp.

___ *American Indians and Alaska Natives in higher education: Research on participation and graduation* (1992) D. M. Pavel. Free, 2 pp.

___ *Are our schools safe?* (1994) Patricia Ceperley and Karen Simon. $2, 4 pp.

___ *Bits, bytes, and barriers: Tennessee teachers' use of technology* (1991) Tennessee Education Association-AEL. $5, 22 pp.

___ *Blueprints for Indian education: Improving mainstream schooling* (1994) Robin A. Butterfield. Free, 2 pp.

___ *Blueprints for Indian education: Languages and cultures* (1994) William Demmert. Free, 2 pp.

___ *Blueprints for Indian education: Research and development needs for the 1990s* (1993) P. Cahape. Free, 2 pp.

___ *Changing schools through experiential education* (1992) P. W. Stevens and A. Richards. Free, 2 pp.

___ *Charmed Particles.* Subscription is free. Contact Eisenhower Regional Math/Science Consortium at 800/624-9120.

___ *Charting new maps: Multicultural education in rural schools* (1992) J. Penney Oliver and C. Howley. Free, 2 pp.

___ *Conversations about authentic assessment* (1993). $10, 90 min.

___ *Conversations about restructuring secondary schools* (1993). $10, 90 min.

___ *Conversations about year-round education* (1991). $10, 60 min.

___ *Cultivating resilience: An overview for rural educators and parents* (1994) Mary Finley. Free, 2 pp.

___ *Developing supplemental funding: Initiatives for rural and small schools* (1993) R. Carlson. Free, 2 pp.

___ *Dissolving the Boundaries: Planning for curriculum integration in middle and secondary schools* (1995) Becky Burns. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10, 83 pp.

___ *Doing our homework: How schools can engage Hispanic communities* (1994) Andrea B. Bermúdez. $12, 91 pp.

___ *Early childhood transitions: Preparing children and families for change* (1994). $5, 32 pp.

___ *EdTalk: Checking up on early childhood care and education* (1995), Ellen Kotlus. $5, 38 pp.

___ *EdTalk: Schools along the border: Education in the age of NAFTA* (1995). $5, 36 pp.

___ *Edtalk: Plugging in: Choosing and using educational technology* (1995) B.F. Jones, G. Valdez, J. Nowakowski, C. Rasmussen. $5, 46 pp.

___ *Edtalk: Rural schools on the road to reform* (1992) Anne C. Lewis. $5, 63 pp.

___ *Edtalk: Surveying the landscape of state educational assessment programs* (1994) L. Bond, with L. Friedman and A. van der Ploeg. $5, 52 pp.

___ *Edtalk: What we know about mathematics teaching and learning* (1991) Nancy Kober. $5, 69 pp.

___ *Edtalk: What we know about science teaching and learning* (1993) Nancy Kober. $5, 95 pp.

___ *Efficient financial management in rural schools: Common problems and solutions from the field* (1991) D. Inman-Frietas. Free, 2 pp.

___ *Facilitating postsecondary outcomes for Mexican Americans* (1994) Judith LeBlanc Flores. Free, 2 pp.

___ *Facilitating systemic change in science and mathematics education: A toolkit for professional developers* (1995). $45, 578 pp.

___ *Family Connections* Vol. 1 for preschool (1992), Vol. 2 for kindergarten/early primary (1993). $150, package for 25 children.

___ *Family lives and parental involvement in migrant students' education* (1991) N. F. Chavkin. Free, 2 pp.

___ *Fighting alcohol and substance abuse among American Indian and Alaska Native youth* (1991) N. Gale. Free, 2 pp.

___ *Finding time for school reform: Obstacles and answers* (1993) Kentucky Education Association-AEL. $6, 60 pp.

___ *Funding rural, small schools: Strategies at the statehouse* (1991) D. Verstegen. Free, 2 pp.

___ *Health problems among migrant farmworkers' children in the U.S.* (1993) G. Huang. Free, 2 pp.

___ *Hispanics in higher education: Trends in participation* (1993) J. Chahin. Free, 2 pp.

___ *Improving evaluation in experiential education* (1994) B. Hendricks. Free, 2 pp.

___ *Improving science and mathematics education: A database and catalog of alternative assessments*, 2nd edition (1994) Regional Educational Laboratories and National Research Centers. $12.95, IBM or Macintosh.

___ *Improving science and mathematics education: A summary of analyzed state curriculum frameworks* (1993). $8, 117 pp.

___ *Improving science and mathematics education—A toolkit for professional developers: Alternative assessment* (1994). $38.85, 435 pp.

___ *In our own words: Community story traditions to prevent and heal substance abuse* (1997) Michael Tierney. $5, 60 pp.

___ *Increasing student access to mathematics and science: A guide for classroom equity projects* (1995). $5, 44 pp.

___ *Indian Nations at risk: Listening to the people* (1992) Patricia Cahape and Craig B. Howley (Ed.). $10, 116 pp.

___ *Initial reactions to the Kentucky Education Reform Act* (1991). $5.50, 20 pp.

___ *Integrated services: A summary for rural educators* (1993) M. N. Lutfiyya. Free, 2 pp.

___ *Intergrating Mexican-American history and culture into the social studies classroom* (1992) K. Escamilla. Free, 2 pp.

___ *Interdisciplinary units with alternative assessments: A teacher-developed compendium* (1995) Virginia Education Association-AEL. $12, 141 pp.

___ *Just Beyond the Classroom : Community Adventures for Interdisciplinary Learning* (1995) Clifford E. Knapp. $12, 108 pp.

___ *Lasting lessons: A teacher's guide to reflecting on experience* (1992) Clifford E. Knapp. $10, 117 pp.

___ *Linking the disciplines: A holistic approach to curriculum design* (1994) Rebecca Burns. $50, 475 pp.

___ *Literacy education for adult migrant farmworkers* (1992) K. J. Bartlett and F. O. Vargas. Free, 2 pp.

___ *Local school improvement council assistance kit* (1994). $25, handbook 66 pp., facilitator's manual 58 pp., video 75 min.

___ *Making connections II: Four educational perspectives* (1991), Kimberly Hambrick, editor. $4.50, 35 pp. (OP-033)

___ *Managing smallness: Promising fiscal practices for rural school district administrators* (1992) Deborah Inman Freitas. $5, 74 pp.

___ *Marginal learners: Identification, prevention, and intervention* (1995). $50, 362 pp.

___ *Mexican immigrants in high schools: Meeting their needs* (1993) H. Romo. Free, 2 pp.

___ *Migrant farmworkers and their children* (1994) P. Martin. Free, 2 pp.

___ *Migrant students who leave school early: Strategies for retrieval* (1991) A. Salerno. Free, 2 pp.

___ *Native education directory: Organizations and resources for educators of Native peoples of the United States and territories* (1993) ERIC/CRESS and Native Education Initiative of the Regional Educational Laboratories. $6, 65 pp.

Notes from the field: Education reform in rural Kentucky. The reports to date are listed below.

___ An overview of KERA implementation in four districts, Vol. 1, No. 1 (1991). $2, 8 pp.

___ Family resource/youth services centers, Vol. 1, No. 3 (1991). $2, 12 pp.

___ Instruction and assessment in accountable and nonaccountable grades, Vol. 4, No. 1 (1994). $2, 12 pp.

___ Kentucky's primary program, Vol. 3, No. 1 (1993). $2, 8 pp.

___ KERA finance measures, Vol. 2, No. 1 (1992). $2, 8 pp.

___ KERA through the eyes of teachers, Vol. 2, No. 2 (1992). $2, 8 pp.

___ School-based decisionmaking, Vol. 1, No. 2 (1991). $2, 13 pp.

___ School-based decisionmaking after two years, Vol. 3, No. 2 (1993). $2, 8 pp.

___ *On target with authentic assessment: Creating and implementing classroom models* (1994). $50, 650 pp.

___ *Outdoor education directory: Organizations involved in outdoor experiential education* (1993). Free, 2 pp.

___ *Parents and schools: From visitors to partners* (1993) Rebecca Burns, Editor. $11.95, 103 pp.

___ *Partnerships: Sharing responsibility for children* (1993) Sichel Gregg. $2, 12 pp.

___ *Priorities for research and development with rural, small schools: Results of a modified Delphi study with a panel of rural researchers* (April 1994), Kimberly Hambrick, John R. Sanders, Phyllis Stowers, John Williams. $7, 31 pp. (OP-035)

___ *Promising practices in mathematics and science education, and Mathematics, science, and technology education: Programs that work* (1994). $20, 302 pp.

___ *QUILT—Questioning and understanding to improve learning and thinking: A staff development program.* Information brochure—updated annually. Free

___ *Reauthorized migrant education program: Old themes and new* (1995) A. Wright. Free, 2 pp.

___ *Recent trends in rural poverty: A summary for educators* (1991) G. Huang and C. Howley. Free, 2 pp.

___ *Reducing school violence: Schools teaching peace* (1993) Tennessee Education Association-AEL. $5, 48 pp.

___ *Rural education directory: Organizations and resources* (1993) ERIC/CRESS and National Rural Education Association. $6, 65 pp.

___ *Rural philosophy for education: Wendell Berry's tradition* (1992) P. Theobald. Free, 2 pp.

___ *School completion 2000: Dropout rates and their implications for meeting the national goal* (1991) C. Howley and G. Huang. Free, 2 pp.

___ *School violence: Information search package* (1994). Free, 154 pp.

___ *School-based decisionmaking: The challenge of change* (1991). $2, 4 pp.

___ *Schools as community social-service centers: West Virginia programs and possibilities* (1993). West Virginia Education Association-AEL. $6, 47 pp.

___ *Small scale and school culture: The experience of private schools* (1994). G. E. Conway. Free, 2 pp.

___ *Surviving the worst, expecting the best: Teacher perceptions of work life in Virginia schools* (1991). Virginia Education Association-AEL. $3.50, 50 pp.

___ *Systemic reform in mathematics and science: A workshop for schools and communities* (1995). $100 (without training). Contact Eisenhower Regional Math/Science Consortium at AEL, 800/624-9120.

___ *Systemic reform: Information search package* (1992). Free, 100 pp.

___ *Systemic reform—Monitoring its progress* (1992). $2, 6 pp.

___ *Teaching and learning in the multigrade classroom: Student performance and instructional routines* (1991). B. Miller. Free, 2 pp.

___ *The academic effectiveness of small-scale schooling (An update)* (1994). C. B. Howley. Free, 2 pp.

___ *The current condition of Native Americans* (1992). H. Hodgkinson. Free, 2 pp., 2 pp.

___ *The distance education handbook: An administrator's guide for rural and remote schools* (1992). Bruce Barker. $5, 66 pp.

___ *The emerging role of tribal college libraries in Indian education* (1992). D. M. Pavel. Free, 2 pp.

___ *The migrant student record transfer system (MSRTS): An update* (1993). P. Cahape. Free, 2 pp.

___ The professionalization of teaching: Centerpiece of Kentucky reform (1992). Mary Leighton and Gary Sykes. $5, 49 pp.

___ *Thinking in outdoor inquiry* (1992). C. E. Knapp. Free, 2 pp.

___ *Thorough and fair: Creating routes to success for Mexican-American students* (1993). Alicia Sosa. $10, 63 pp.

___ *Toward the construction of a federal policy-impact code for classifying the nation's rural school districts* (1992). E. Robert Stephens. $8, 70 pp. (2-paper set, OP-034)

___ *Trends and options in the reorganization or closure of small or rural schools and districts* (1992). F. Lutz. Free, 2 pp.

___ *Understanding and identifying children with ADHD: First steps to effective intervention* (1995, September). Soleil Gregg. $2, 8 pp.

___ *Ungraded classrooms—Fail-safe schools?* (1991). $2, 4 pp.

___ *Ungraded primary programs: Steps toward developmentally appropriate instruction* (1991). Kentucky Education Association-AEL. $7, 50 pp.

___ *Ungraded primary: Information search package* (1991). Free, 100 pp.

___ *Use of the Spanish language in the United States: Trends, challenges, and opportunities* (1991). S. Santiesteban. Free, 2 pp.

___ *Using literature by American Indians and Alaskan Natives in secondary schools* (1992). A. Grant and L. Gillespie. Free, 2 pp.

___ *What can I become? Educational aspirations of students in rural America* (1992). T. Haas. Free, 2 pp.

___ *WVEA-AEL site-based decision making casebook* (1991). West Virginia Education Association-AEL. $3.50, 37 pp.

The information helps service providers determine if they are doing everything possible to make their programs a success. Also included are highlights of key federal laws and steps to successful implementation. $5, 38 pp.

Family Connections Vol. 1 for preschool (1992), Vol. 2 for kindergarten/early primary (1993)

These guides are designed to help families be more effectively involved in their children's education. Teachers can send the colorful, four-page guides home with children weekly, family educators with Head Start or other programs can use them as they visit homes, or programs can mail them directly to interested parents. Each set contains 30 different weekly guides and one set is needed per child. A classroom set contains guides for 25 children, plus a handbook for the teacher or program director. The guides include a message to parents on topics such as the importance of reading aloud, effective discipline, and using the public library; a read-aloud section; developmentally appropriate activities that parents and children can do together; and a Sunshine Gram for positive communications with families. $150, package for 25 children.

Parents and schools: From visitors to partners (1993) Rebecca Burns, Editor

Involving parents in schools is the key to real school reform. This book, part of NEA's Restructuring Series, builds on the experiences of educators and parents who have formed successful school-home partnerships. It includes a review of the research on parent involvement; strategies to initiate and maintain effective two-way communication between home and school; in-depth descriptions of exemplary parent-involvement programs; a summary of parent-involvement practices found in successful school programs; and a list of resources educators and parents can use to plan, implement, and evaluate partnership efforts. $11.95, 103 pp.

Partnerships: Sharing responsibility for children (1993) Soleil Gregg

This issue of *Policy Briefs* presents the need for schools, families, and communities to work together for children; describes actions schools can take to involve families and communities; and suggests what policymakers can do to promote and support effective partnerships. It concludes with a review of parent involvement activities in Kentucky, Tennessee, Virginia, and West Virginia, and highlights exemplary parent involvement programs in each of the four states. $2, 12 pp.

Rural Education and Small Schools

A case study of the impact of a state-level policy designed to improve rural schools in the state of Vermont (February 1994) Robert V. Carlson

This case study used a combination of quantitative and qualitative methods to examine all K-12 school units in the state of Vermont to gather information on how these rural schools function under the twin pressures of higher state-level standards and limited fiscal resources. The study found a number of innovative approaches, including distance learning, independent study, cross-disciplinary teaching, and multi-age grouping. $7, 46 pp. (OP-036)

A framework for evaluating state policy options for the reorganization of rural, small school districts (1991) E. Robert Stephens

This paper presents structures by which state policymakers and others can assess alternative ways to address the needs of rural and small school districts in the context of the issues. The framework consists of four principal parts: historical and contemporary realities, new priority needs to focus the state policy response, tools to judge the ends and means of policymaking, and major policy options that hold promise for rural districts. Stephens also illustrates use of the framework in a hypothetical application. $15, 94 pp. (OP-032)

Edtalk: Rural schools on the road to reform (1992) Anne C. Lewis

Understanding the issues in rural school reform and learning how to address them are the first steps in improving quality and equity in rural schools. This source book describes initiatives of the Regional Laboratories that involve rural schools. It includes successful practices and programs, lists relevant publications from the Regional Laboratories and the ERIC Clearinghouse for Rural Education and Small Schools, and provides an index to Laboratory rural education projects. $5, 63 pp.

In our own words: Community story traditions to prevent and heal substance abuse (1992) Michael Tierney

This guidebook helps concerned adults living in rural areas to lead youth in finding and sharing often overlooked strengths in the wisdom and understandings within a local or tribal tradition. The author states, "The real war on drugs is won only when people fully realize they have other options, in both pleasure and despair ...." Methods and activities for using participatory research, cultural journalism, and experiential writing are included. $5, 60 pp.

Managing smallness: Promising fiscal practices for rural school district administrators (1992) Deborah Inman Freitas

Drawing on a nationwide survey of rural superintendents and small business managers, this book shares success strategies for financial management of rural, small school districts. The author describes strategies for addressing crucial budgetary concerns and successful cost-reduction programs, including budgeting, personnel management, collaboration, and communication. Current issues of funding, equity, quality, community development, and cooperative options for rural schools are discussed. $5, 74 pp.

Priorities for research and development with rural, small schools: Results of a modified Delphi study with a panel of rural researchers (April 1994) Kimberly Hambrick, John R. Sanders, Phyllis Stowers, John Williams

This study was conducted over a ten-month period in 1992 with selected members of the Rural Education Special Interest Group of the American Educational Research Association. The primary purpose of the study was to examine an existing agenda for rural education research. The secondary purposes were to develop a menu of researchable issues, to prioritize the major topics on the agenda, and to allocate a hypothetical budget across the major topics. Implications for future rural education research and development were derived from the findings of this study. $7, 31 pp. (OP-035)

Rural education directory: Organizations and resources (1993) ERIC/CRESS and National Rural Education Association

This directory includes sections on national organizations (associations, networks, centers, and clearinghouses); federal government programs (Regional Educational Laboratory rural program coordinators, National Diffusion Network state facilitators, and other federal and congressional offices); state organizations (NREA affiliates and other groups involved in rural education at the state level); state department of education rural program coordinators; state data centers; and rural journals. $6, 65 pp.

The distance education handbook: An administrator's guide for rural and remote schools (1992) Bruce Barker

Avoiding high-tech jargon, the author discusses three popular distance education technologies: satellite, audiographics, and two-way, full-motion TV deliveries. Each of these systems has distinct advantages and disadvantages. Discussions include issues and concerns, technology types, costs, and examples of projects and programs. An extensive annotated bibliography of relevant works from the ERIC Document Reproduction Service is also included. $5, 66 pp.

Toward the construction of a federal policy-impact code for classifying the nation's rural school districts (1992) E. Robert Stephens

Stephens suggests an approach for arriving at a common definition for "rural" and offers a rationale for developing a new classification code for rural school districts. The paper suggests four broad classes of indicators that meet accepted standards for inclusion in such a code. Finally, it recommends that the National Center for Education Statistics convene a study panel of federal, state, and other experts to consider both the policy and technical issues involved. $8, 70 pp., 2-paper set (OP-034)

ERIC/CRESS DIGESTS (free):

Charting new maps: Multicultural education in rural schools (1992) J. Penney Oliver and C. Howley

Cultivating resilience: An overview for rural educators and parents (1994) Mary Finley

Developing supplemental funding: Initiatives for rural and small schools (1993) R. Carlson

Efficient financial management in rural schools: Common problems and solutions from the field (1991) D. Inman-Freitas

Funding rural, small schools: Strategies at the statehouse (1991) D. Verstegen

Integrated services: A summary for rural educators (1993) M. N. Latfiyya

Recent trends in rural poverty: A summary for educators (1991) G. Huang and C. Howley

Rural philosophy for education: Wendell Berry's tradition (1992) P. Theobald

Small scale and school culture: The experience of private schools (1994) G. E. Conway

Teaching and learning in the multigrade classroom: Student performance and instructional routines (1991) B. Miller

The academic effectiveness of small-scale schooling (An update) (1994) C. B. Howley

Trends and options in the reorganization or closure of small or rural schools and districts (1992) F. Lutz

What can I become? Educational aspirations of students in rural America (1992) T. Haas

School Reform/Restructuring

Conversations about restructuring secondary schools (1993)

This audiotape presents interviews with regional experts on the implications for teachers when secondary schools restructure. The tape is accompanied by a bibliography and background information on the interviewees and the topic. $15, 90 min.

Conversations about year-round education (1991)

This audiotape focuses on the emerging trend toward year-round schooling. It includes interviews with the executive director of the Association for Year-Round Education as well as administrators who work in or with schools that have year-round programs. The tape comes with a bibliography and background information on the interviewees and the topic. $15, 60 min.

Finding time for school reform: Obstacles and answers (1993) Kentucky Education Association-AEL

Based on a statewide survey of educators, this study identifies the extent and uses of time educators have spent outside the school day implementing the Kentucky Education Reform Act. It describes innovative methods for creating time for teacher collaboration, recommends effective ways to create time for reform, and includes a bibliography and review of relevant literature. $6, 60 pp.

Initial reactions to the Kentucky Education Reform Act (1991)

The Kentucky Education Reform Act of 1990 remains one of the most comprehensive education reform laws in the nation. This study of six rural school districts documents the thoughts and feelings of Kentucky educators in the first few months of the Act's implementation. $5.50, 20 pp.

Local school improvement council assistance kit (1994)

The West Virginia Department of Education and AEL developed this kit to help Local School Improvement Councils (LSICs) and other school governance groups work more effectively. The kit includes readings, a videotape, and a facilitator's manual. It focuses on four topics: What is an LSIC? How do LSICs work? How do teams work effectively? and, How is your LSIC working? The video contains highlights from a 1992-1993 teleconference which was broadcast throughout West Virginia. $25, handbook 66 pp., facilitator's manual 58 pp., video 75 min.

Notes from the field: Education reform in rural Kentucky

This publication is designed to provide ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. The reports to date are listed below.

- *An overview of KERA implementation in four districts,* Vol. 1, No. 1 (1991)
  This issue provides a brief overview of the status of KERA implementation at the time of publication in the four study districts. Broad topics examined are curriculum, governance, and finance. $2, 8 pp.
- Family resource/youth services centers, Vol. 1, No. 3 (1991)
  This issue describes the integrated services component of KERA and discusses four centers operating in the study districts. Potential problems and immediate benefits of the centers are considered. $2, 12 pp.

- Instruction and assessment in accountable and nonaccountable grades, Vol. 4, No. 1 (1994)
  In an effort to determine how much instructional change had occurred in the upper grades of the four rural school districts as a result of the Kentucky Education Reform Act (KERA), the researchers compared two grades in the accountability component of the new statewide assessment (Grades 4 and 8) with one nonaccountable grade (Grade 5). This issue presents the major findings of this analysis. $2, 12 pp.

- Kentucky's primary program, Vol. 3, No. 1 (1993)
  This issue reports observations of the implementation of the Kentucky Education Reform Act (KERA) primary program in four rural Kentucky school districts. Researchers observed the seven critical attributes identified by the state as essential to successful implementation of the primary program: developmentally appropriate practices; multi-age/multi-ability classrooms; authentic assessment; qualitative reporting methods; professional teamwork; parent involvement; and continuous progress. They also describe the effects of KERA on primary teachers and the importance of the principal for program success. $2, 8 pp.

- KERA finance measures, Vol. 2, No. 1 (1992)
  This issue is an overview of KERA finance measures and discusses statewide implementation of the SEEK formula. $2, 8 pp.

- KERA through the eyes of teachers, Vol. 2, No. 2 (1992)
  This issue shares the findings of teacher focus-group discussions held in each of the four school districts participating in the study. Teachers talk about all aspects of reform, including new instructional strategies, increased work load, professional development, the ungraded primary program, school-based decisionmaking, the extended school services program, family resource centers, instructional funding allocations, state department support, the role of administrators, and suggestions for policymakers. $2, 8 pp.

- School-based decisionmaking, Vol. 1, No. 2 (1991)
  This issue discusses the status of the implementation of site-based decisionmaking in the four study districts, and includes a brief overview of KERA policy on school-based decisionmaking. Results of a survey investigating school district staff attitudes toward SBDM in two of the districts are presented. $2, 13 pp.

- School-based decisionmaking after two years, Vol. 3, No. 2 (1993)
  A follow-up to the 1991 report, this issue looks at site-based decisionmaking in the four study districts over the past two years, including how local councils share decisionmaking among principals, teachers, and parents; the types of decisions councils make; the role of councils in overall KERA implementation; and factors that help or hinder shared decisionmaking. $2, 8 pp.

School-based decisionmaking: The challenge of change (1991)

Complex education innovation requires extra resources: time, dollars, staff development, and outside support. The change process can also be affected by the perceptions and concerns of the participants and a principal's leadership style. This issue of *Policy Briefs* helps policymakers, officials, and school personnel understand the implementation and implications of education change in the context of school-based decisionmaking. $2, 4 pp.

Schools as community social service centers: West Virginia programs and possibilities (1993). West Virginia Education Association-AEL

Teachers and school staff who would like to establish or expand school-based, social service programs may find this report helpful. The report describes 40 programs in West Virginia, providing details on activities, resources, and contacts. It also contains recommendations for planning and funding programs, a bibliography, and a list of relevant national and state organizations. $6, 47 pp.

Surviving the worst, expecting the best: Teacher perceptions of work life in Virginia schools (1991). Virginia Education Association-AEL

This study focuses on factors that influence working conditions in Virginia schools: teachers' interactions with administrators, students, and other teachers; facilities and class size; professional development; personnel policies; school-parent interactions; and school decisionmaking. It recommends ways to enhance working conditions, reviews current literature, and includes a bibliography. $3.50, 58 pp.

Systemic reform: Information search package (1992)

This information package contains articles by some of the foremost national experts on systemic school reform. It provides policymakers and educators the philosophical basis of the reform movement and presents strategies for transforming reform into practice. Free, 100 pp.

Systemic reform—Monitoring its progress (1992)

Systemic school reform and concerns of accountability are the focus of this issue of *Policy Briefs*. The paper presents a series of questions to help policymakers assess the systemic nature of their education reform efforts, and describes four models that policymakers can use to monitor and evaluate reform progress and results. $2, 4 pp.

The professionalization of teaching: Convergence of Kentucky reform (1992). Mary Leighton and Gary Sykes

In a policy issue paper prepared for the Kentucky Education Professional Standards Board, the authors review the knowledge base for teaching; examine state and national trends in teacher certification, evaluation, and induction; and make recommendations for teacher licensure in Kentucky. $5, 49 pp.

Ungraded primary: Information search package (1991)

This information package on ungraded primary programs is an excellent reference for policymakers, administrators, and teachers. It includes extensive bibliographies, names and addresses of schools implementing ungraded primary programs, numerous journal articles discussing theory and successful practices, and instructional and information resources. Free, 100 pp.

WVEA-AEL site-based decisionmaking casebook (1991). West Virginia Education Association-AEL

There are no magic formulas for implementing site-based decisionmaking. Faculties and education stakeholders must design decisionmaking structures to fit their schools' unique characteristics and needs. This study group product provides models, structures, practices, and advice to help education stakeholders organize site-based decisionmaking efforts. $5.50, 37 pp.

ERIC/CRESS Digest (free):
School completion 2000: Dropout rates and their implications for meeting the national goal (1991). C. Howley and G. Huang

School Violence

Are our schools safe? (1994). Patricia Coperley and Karen Simon

Because reports of school violence appear regularly in the media, parents, educators, and even students are wondering if schools are safe places to learn and work. This issue of *Policy Briefs* examines the trends in school violence in the context of social violence, describes efforts to make schools safe, and reports strategies to curb school violence in AEL's four-state region—Kentucky, Tennessee, Virginia, and West Virginia. $2, 4 pp.

Reducing school violence: Schools teaching peace (1993). Tennessee Education Association-AEL.

This resource guide was developed by a study group of educators concerned about classroom disruptions that steal instructional time and threaten the safety of students. It can also be used by community groups and parents to help children develop skills to deal with their emotions and interact with others in productive ways. The guide includes a rationale for why schools must address the problem of violence; contact information for school-based conflict resolution programs; case studies of successful elementary, middle, and high school programs; a list of conflict resolution and mediation organizations and training providers; and an extensive annotated resource list of programs, curriculum guides, print materials, and videotapes. $5, 48 pp.

School violence: Information search package (1994).

This information package contains a variety of current resources on school violence and is an excellent reference for educators, policymakers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources. Free, 154 pp.

Technology

Bits, bytes, and barriers: Tennessee teachers' use of technology (1991). Tennessee Education Association-AEL.

This study group report describes the use of educational technology in Tennessee schools. It analyzes the results of a survey of teachers and includes recommendations for and practices to promote the use of technology. $5, 22 pp.

Edtalk: Plugging in: Choosing and using educational technology (1995). B.F. Jones, G. Valdez, J. Nowakowski, C. Rasmussen

This document helps educators choose technologies that support student learning. It includes a framework for planning technology and technology-enhanced programs that complement learning. The publication closes by proposing ways that policymakers can encourage the spread of effective technologies to more schools. $5, 46 pp.

Forthcoming Products

Concerns about and effective strategies for inclusion: Focus group interview findings from Kentucky (1995).

Concerns about and effective strategies for inclusion: Focus group interview findings from Tennessee (1995).

Concerns about and effective strategies for inclusion: Focus group interview findings from Virginia (1995).

Concerns about and effective strategies for inclusion: Focus group interview findings from West Virginia (1995).

Continuity in early childhood: A framework for home, school, and community linkages (1995).

Inclusion of special needs students: Lessons from experience (1995).

Nonlinear evolution of school-based decisionmaking in Kentucky (1995). Pamelia Coe, Patricia Kannapel, Lola Aagaard, and Beverly Moore

Policy Briefs: The state of state education accountability (1995).

Teacher perceptions of and strategies for inclusion: A regional summary of focus group interview findings (1995).

The public school superintendency: A comprehensive profile (1995). Aimee Howley and Leslie Anton Clifton

Voices from the field: Secondary school inclusion in the AEL region (1995).

To order any of these products, use the Order Form included with this issue of The Link.

out conversations with their colleagues about what students should know and be able to do as a result of their schooling.

According to Burns, if teachers are not enthusiastic about change, nothing can happen. "The readiness factor is important," she says. "People need to make a commitment before they can make a change."

Burns says this is the kind of enthusiasm shown by the Virginia teachers. AEL's pilot project was conducted at four Virginia schools—Auburn High and Middle School, Woodstock Middle School (now Peter Muhlenberg Middle School), Buffalo Gap High School, and Nelson High School.

The project required some initial research on the part of the teachers to decide just what they wanted to do. Once they had designed their curriculum model, they tested, redesigned, and retested it—good practice in curriculum development, researchers say. Outside evaluators also looked at the program and gave it high marks for effectiveness.

In an integrated school, teachers work together across department boundaries in grade-level or multi-age interdisciplinary teams generally composed of three, four, or more teachers. As one teacher said, "Teaming keeps me from feeling isolated in my classroom." Another reported that "resources were shared rather than hoarded, and computers became tools rather than toys [as] students discovered their power."

For administrators, student achievement is frequently the bottom line. Leaders from the schools in AEL's project were pleased with the results. "Students showed significant improvement [and] greater interest in self-directed research and learning," one administrator proudly stated.

Teacher-administrator relationships also improved. One teacher said, "Our administrators have not only encouraged us to implement integrated curriculum, they have provided an atmosphere where risk taking is not something to fear."

Teachers and administrators, however, are not the only stakeholders. Parents no longer play only peripheral roles—in booster clubs and parent-teacher organizations. They get opportunities to become involved in the curriculum—in a positive way. Community involvement becomes a two-way street. Business people visit the school to talk about career possibilities or help students fill out applications and write resumes. Students can suggest solutions to local issues and problems, using strategies they "practice" in school settings.

Integrated curriculum involves an inquiry or discovery approach to learning. Students are often required to figure out what they need to know to solve a problem or complete a task, while teachers act as facilitators or resource persons. With a team of teachers, students are exposed to more than one learning style and are more likely to find a suitable model for their own learning. "With integrated instruction, students are much more engaged in the learning process," Burns says. "They don't have the time or opportunity to sit back and be passive."

At the core of the effort is professional development for teachers. Burns' book, *Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools*—and accompanying facilitator's guide—can be used by school faculties who want to learn more about the process and determine their readiness to begin. Both are available from AEL.

AEL staff have already trained facilitators in several school districts across the Region to lead school-based sessions; with orders for *Dissolving the Boundaries* from more than 20 states, the need for national facilitator training is expected.

Teachers will always have their own standards and requirements, but integrated instruction gives them a chance to build a curriculum that is not limited by the artificial boundaries of subject areas. And the beauty of it, according to one teacher, is that "it isn't just for a set group of students. It's for all of them."

410 copies of Dissolving the Boundaries and 245 Facilitator Guides were disseminated in 22 states during FY 91-95.

Planning for Curriculum Integration
in Middle and Secondary Schools
Rebecca Crawford Burns
AEL

97

BEST COPY AVAILABLE

Future Holds Array of Diverse Services for AEL Clients

As the century draws to a close, AEL enters a new era. Educators and others concerned about education throughout the four states can expect to receive more diverse services in the years ahead.

Operating as a Regional Educational Laboratory has been at the core of the organization for nearly 30 years. The AEL of today consists of several parts, which offer a greater variety of services through several contracts or grants from federal, state, and local sources.

- The **Regional Educational Laboratory** is one of 10 Regional Labs located across the country. Working with educators in the Region, the Laboratory designs R&D-based training programs, develops new processes and products through systematic R&D methods and strategies, evaluates education programs, serves as a neutral convener of state or regional groups, studies the implementation of state policies, and synthesizes R&D-based information.
- The **Eisenhower Regional Consortium for Mathematics and Science Education** works with state steering committees of math and science teachers and educators to customize its work in each state. The Consortium develops professional development training that reflects national standards, gives teachers greater access to technology, trains teachers in classroom applications of technology, and serves as a communications link where teachers learn of opportunities and resources related to reform, and where consortia share resources with teachers engaged in reform.
- The **ERIC Clearinghouse on Rural Education and Small Schools** is one of 16 clearinghouses in the nationwide Educational Resources Information Center system. A computer-searchable database, ERIC makes research-based articles and resources available to all. AEL's Clearinghouse places into the ERIC system works on rural education, American Indians and Alaska natives, Mexican Americans, migrants, and outdoor education.
- AEL recently received a grant to operate one of 15 new **Regional Comprehensive Assistance Centers** authorized by Title XIII of the Elementary and Secondary Education Act. The new centers consolidate the services of 48 existing projects serving individual categorical programs.
- Under its **Regional Technology Consortium**, AEL works with educators and others to integrate advanced technologies into K-12 classrooms, library media centers, and other educational settings.

If you would like more information about how to access any of these services, please feel free to contact us by phone, FAX, or e-mail. You'll find our address and phone numbers on page 15.

Results of AEL School Survey on Inclusion

We promised to share results from the AEL School Survey on Inclusion mailed with the Spring/Summer theme issue of *The Link*. We appreciate the efforts of those who returned the survey. Because of the number returned, however, one should not use these results to draw firm conclusions about a broader audience.

- About half of the returned surveys were completed by administrators.
- Most of the survey respondents said their school's inclusion efforts resulted from either a districtwide mandate or a building-level administrative initiative.
- The most often used aids or supports for inclusion were paraprofessionals or teacher's aides, followed by special education co-teachers, computer equipment, and special curriculum materials.
- The obstacles to inclusion mentioned most frequently were fears and attitudes of those

(continued on page 11)

RESEARCH NOTES

Primer Introduces Performance Assessments for Mathematics, Science

A primer published by the ERIC Clearinghouse for Science, Mathematics, and Environmental Education introduces math and science teachers to performance-based assessment.

Performance-based assessment requires that students demonstrate a skill or perform an activity that mirrors real life. It is compatible with instruction pressed by reports that emphasize complex tasks, higher order thinking, reasoning, and communication. More importantly, it lets teachers use students' assessment results to identify where they should focus instruction.

Good performance assessment has a number of key elements, says author Margaret Jorgensen. It incorporates hands-on activities, inquiry, and cooperative learning; promotes students' natural curiosity; and encourages students to use several strategies and devise multiple solutions.

Student collaboration is also integral to performance assessment. However, "Until there is a way to quantify or qualify fairly the individual contributions revealed through collaborative assessments," warns Jorgensen, "in no situation should collaboration be considered in high-stakes assessment programs." High-stakes assessments are those that directly affect or determine student promotion.

In developing a performance assessment, educators must first identify the purpose of assessment. Although the purposes of assessment differ, the book is written under the assumption that its purpose is to inform instruction, notes Jorgensen. Educators must subsequently articulate the learning processes and content knowledge the assessment ought to describe, the types of skills it should evaluate, the process it ought to foster, such as scientific investigation, and whom it ought to inform.

The primer also describes appropriate uses for holistic and analytic scoring, provides a checklist to determine the quality of a performance assessment, and answers common questions.

Ordering information: *Assessing Habits of Mind: Performance-Based Assessment in Science and Mathematics* is available from the ERIC Clearinghouse for Science, Mathematics, and Environmental Education, The Ohio State University, 1929 Kenny Rd., Columbus, OH 43210-1080 (cite order no. [illegible]), [illegible] pages, $[illegible] prepaid.

Communication from School Increases Parents' Confidence and Support for Kids' Learning

Newsletters and other communications from school help parents become more involved with their children's education by promoting a belief in their ability to influence their children's school success.

An evaluation by the Center on Families, Communities, Schools, and Children's Learning lauds frequent and effective communications—those that inform parents as to what their children are learning in school and how they can support that learning at home.

Researchers Carole Ames, Lorenzo de Stefano, Thomas Watkins, and Steven Sheldon say that parents who receive such communications more actively support their children's learning. These parents talk to their children about what they learn in school, review and discuss assignments, and stay informed of their children's academic progress.

Communication from school reinforces parents' confidence in their ability to support their children's learning and success in school, giving parents a so-called sense of efficacy that is key to encouraging their involvement. That sense of efficacy "appears to be especially important for those parents with less formal education," such as a high school education, say the researchers.

Schools should not rely solely on communications to improve parents' self-efficacy, urge the researchers. They note, "Additional programs that give parents training in specific skills or that directly involve parents in the instructional process may have even stronger effects on parents' beliefs about their ability to have an influence."

Ordering information: *Teachers' School-to-Home Communications and Parent Involvement* is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3505 N. Charles St., Baltimore, MD 21218 (cite report no. [illegible]), [illegible] pages, $[illegible] prepaid.

Information, Framework Help Leaders Select, Integrate Improvement Programs

To produce successful results from planned school improvement change efforts, education leaders must "be informed and wise decision-makers so that the changes match the areas that need changing and thus have the best chance to create improvements that increase student learning," says researcher Susan Loft Everson in a new sourcebook published by Scholastic. *School Improvement Programs: A Handbook for Educational Leaders* was coedited by Everson of the Mid-continent Regional Educational Laboratory, with James H. Block and Thomas R. Guskey.

The book is designed to help educators understand and use major research-based school improvement programs to advance positive education change. It contains three sections. The first, a chapter by Block, provides a rational framework for studying innovative programs as "five-dimensional tools of school improvement and change."

Part II provides clear, concise descriptions of 18 of the best and most popular school and classroom improvement programs. In each chapter, the program's founder or spokesperson discusses the intentions, methods, and focus of the program he/she developed. The editors grouped these programs into three categories according to whether each focuses primarily on learning, teaching, or schooling. These summaries give educators a wealth of good choices.

But education leaders need information not only about the innovations themselves but also about how to select those that fit the needs of their schools and how to implement and integrate the selected innovations effectively. In Part III, Everson describes analysis and decision-making processes for identifying a school's problem areas and selecting solutions that match those needs and thus help achieve the school's improvement goals. Finally, Guskey takes Everson's framework one step further by explaining a process for integrating innovations and assessing how they match one another.

Ordering information: *School Improvement Programs: A Handbook for Educational Leaders* is available from Scholastic, Inc., Leadership/Policy/Research, P.O. Box [illegible], Jefferson City, MO [illegible] (use order no. [illegible]), [illegible] pages, $[illegible] plus $[illegible] shipping and handling.

Teacher Education Programs Are Updating an Old Process to Improve Science Teaching

Mounting public pressure for improved science teaching has some teacher education programs returning to a past model of learning: the Learning Cycle Model. Developed in the 1960s, the model complements current reform practices, such as hands-on learning, authentic assessment, and integrated curricula.

Some current uses for the model are described in a compendium of articles recently published by the ERIC Clearinghouse for Science, Mathematics, and Environmental Education.

The Learning Cycle Model has five stages. First, teachers show students general subject matter and assess how much students already know. Second, students begin to explore the subject matter and develop initial ideas about it. Third, students explain their ideas to teachers who help refine them. Fourth, students apply the content to new areas. And fifth, teachers evaluate students.

In one of the book's articles, John R. Staver and Gail Shroyer discuss how teacher education students learn to integrate hands-on activities with the model in a lesson about electricity. The students connect a battery, a light bulb, and a wire so that the bulb lights up. They then discuss why the bulb lit up and use the principles they have learned to create advanced electrical circuits.

Nancy Murphy describes how authentic assessments fit into the model. Teachers might have students write in journals about their understandings of science topics or they might also have students explain concepts through interviews or self assessments.

Ann M. L. Cavallo and Larry E. Schafer note that although the model was originally developed for science, teachers can use it to integrate curricula in a number of subjects. During a lesson in which students build model boats, for example, students could also write about a passenger's adventures on the boat, learn about islands and continents, and study famous voyagers.

Ordering information: *Behind the Methods Class Door: Educating Elementary and Middle School Science Teachers* is available from the ERIC Clearinghouse for Science, Mathematics, and Environmental Education, The Ohio State University, [illegible] Kenny Rd., Columbus, OH [illegible] (use order no. [illegible]), [illegible] pages, $[illegible] prepaid.

Several Testing Experts Argue Against Using High-Stakes Tests to Drive School Improvement

In testing, policymakers have two main goals: to find out what students know and to promote school improvement by using test results to make "high-stakes" decisions—those that affect areas such as funding, teacher salaries, and student promotion.

But high-stakes testing is dangerous. And policymakers can both learn what students know and foster school improvement without tying test results to high-stakes decisions, says an audiotape on testing policy produced by the North Central Regional Educational Laboratory.

Any test—even performance tests that assess complex, applied skills—can lose its potential benefits if it becomes the deciding factor in high-stakes decisions, explain audiotape moderators Ed Roeber and Linda Bond. Testing experts George Madaus and [illegible], both interviewed on the tape, say that when policymakers tie important decisions to test results, teachers feel unduly pressured to ensure that students do well on the test. Thus teachers drill students on superficial test components, such as the format of the test, and take important time away from real instruction.

Madaus further claims that the public and policymakers don't need complete test results from every student to monitor how the school system as a whole is doing. Randomly sampling students' test results will give the public and policymakers plenty of information with which to compare schools and districts on a large scale.

Ramsay Selden, also interviewed, concurs that general information on a sampling of students will provide enough accountability. "Recognize that comparisons and public visibility [of students' test scores] will generate enough pressure" for school improvement, he says.

Madaus adds that, putting accountability aside, the public and policymakers must trust that teachers know appropriate teaching and should provide professional development to help them do so.

Ordering information: *Policy Talk* is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521; 1-800-[illegible] (use order no. [illegible]), 2 hours, $9.95 prepaid.

Inclusion Survey (continued from page 4)

closely involved with a school's inclusion efforts at the classroom level.

The survey asked about the reaction of different role groups to the school's inclusion efforts. On a scale of 1 (very negative) to 7 (very positive), the two groups seen as responding most positively were special education students and their parents (5.8 for both). Respondents also viewed regular education students (5.7) and administrators (5.5) as responding positively. Three other groups' reactions were seen as being nearly equal and just slightly toward the positive end of the scale—parents of regular education students and community (4.8 for both) and teachers (4.9).

Here is how some survey respondents see the inclusion movement 5-10 years from now:

> *I am afraid that the rancor and disdain against inclusion will continue to grow and speak out on local, state, and national levels and the guarantees we've always had under IDEA will be weakened or taken away so that inclusion will only be for mild disabilities or for those with "good" behaviors. I see more and more students in homebound [instruction] or alternative learning centers.*
>
> *—Parent of a special education student*

> *I feel that inclusion will become as ordinary a part of the education program as math and P.E. I don't believe inclusion is a passing "fad" in education because we have found how beneficial it is to our students. Hopefully, future inclusion programs will enable us to better serve the needs of our students.*
>
> *—Special education teacher*

> *I see it as simply one part of the overall thrust of restructured schools. It isn't, nor was it ever meant to be an isolated philosophy or approach. It meshes with authentic assessment, literature-based learning, etc. in [illegible] restructuring for the changing 21st century!*
>
> *—Inclusion facilitator working with several schools*

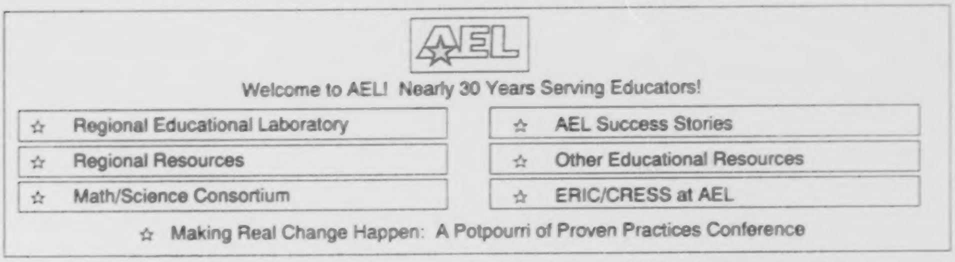
Now you can find AEL on the Internet!

Have you been browsing around the information superhighway lately? If so, we hope you've found AEL. Our technology staff have been hard at work these past few months to establish AEL's presence on the World Wide Web. As they say on the 'Net, our Web site is "under construction" (translate that to "we're still working on it"), but we have basic information about AEL and its many parts, as well as links to other education resources in the Region and across the nation.

For example, you can access

- classroom resources;
- professional development resources;
- each of the nine other Regional Educational Laboratories; and
- AskERIC, where you can search the ERIC database.

Plan to visit soon. Our address is http://www.ael.org. You'll get AEL's Home Page, which looks something like this:



Welcome to AEL! Nearly 30 Years Serving Educators!

☆ Regional Educational Laboratory
☆ AEL Success Stories
☆ Regional Resources
☆ Other Educational Resources
☆ Math/Science Consortium
☆ ERIC/CRESS at AEL
☆ Making Real Change Happen: A Potpourri of Proven Practices Conference

Want to let us know what you think? Send an e-mail to aelinfo@ael.org.

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy.

Nonprofit
Organization
U.S. Postage Paid
Permit No. 2560
Charleston
West Virginia
25301

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (FAX)
aelinfo@ael.org
www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board:
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Wohl

OERI

The Appalachia Educational Laboratory, Inc., is a private, nonprofit corporation. AEL works with educators in ongoing R&D-based efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia, and operates the Eisenhower Math/Science Consortium for these same four states. It also operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement, U.S. Department of Education. This publication is produced with funds from OERI contract number RP91002002. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 15
No. 1
•
Spring
1996

Five Years of Education Reform— A Look at Four Rural Kentucky Districts

The KERA Study

Since 1990, AEL has studied the implementation of the Kentucky Education Reform Act (KERA) in four rural school districts. The purpose of the long-term study is to analyze the effects of the nation's most comprehensive reform law, and to report results to policymakers, educators, and scholars. Because KERA incorporates many reform measures discussed nationwide, the study has attracted both state and national interest.

The study's five-year findings were summarized recently in AEL's publication, "Notes From the Field: Education Reform in Rural Kentucky." The following excerpt from "Notes" reports researchers' general findings; readers interested in more specific information may obtain the full issue of "Notes" (see the Order Form in the center of *The Link*).

Summary of Findings

Without the extra funding provided by KERA, it is unlikely that reform would or could have happened in the four study districts. The funding signaled the seriousness of the legislators' intent to support change and made KERA implementation possible.

Like many rural districts, the four study districts had limited funding, relatively low salaries, few special program staff, and few central office staff prior to KERA. After KERA, all four districts were able to increase salaries and hire additional staff. By the end of the study period, funding available through the new Support Education Excellence in Kentucky (SEEK) formula had greatly increased the districts' capacity to provide instructional materials. Categorical funding—for example, family resource and youth services centers, preschool program, professional development (which increased from $1 per student to more than $20 per student by 1995), and extended school services—made it possible for districts to offer programs and services otherwise unavailable in these rural schools. Even with the major funding increases, however, districts were not able to sufficiently alleviate teacher overburden created by KERA implementation or to fully meet needs for building renovation and construction.

KERA technology funds helped districts plan technology programs and obtain hardware. Prior to KERA, none of the districts had sufficient computer technology to provide more than a

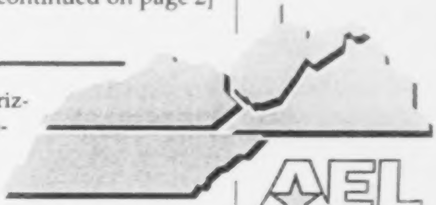
[continued on page 2]

In this issue:

RESEARCH NOTES
Updated Research Findings Describe Effective Practices to Improve Student Performance, p. 4
Array of Standards, Benchmarks Help Guide Teachers' Decisions About Curriculum & Assessment, p. 4
Developing and Implementing Alternative Assessment Demands Expenditures and Indirect Costs, p. 5
Sustained Policy Support Needed If Links with Rural Schools Are to Revitalize Communities, p. 5
Guide Offers Range of Ideas to Help Prevent Violent Events in the School and Community, p. 6
NAEP May Not Be Categorizing Students Into Appropriate Ability Levels in Mathematics , p. 6

INSIDE AEL
Celebrating 30 Years of Service—New Contract Supports Variety of Work Across Region, p. 7
The Quarterly Sampler—Some of the Best From ERIC/CRESS, p. 8

AROUND THE REGION
AEL and State Education Leaders Design Joint Projects, p. 10



AEL
celebrating
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

RC 02179

BEST COPY AVAILABLE

few students with regular access to computers or to assist with administration and management. After KERA, districts' use of technology increased to varying degrees. Districts that used local funds to supplement KERA funding progressed more rapidly than those that did not.

The new ***high-stakes assessment program*** and the ***mandated ungraded primary program have been the major drivers of instructional change***. Many teachers in the study districts adopted and accepted as valuable some attributes of the primary program and the emphasis on teaching writing, reinforced through the Kentucky Instructional Results Information System (KIRIS). A large quantity of professional development in these areas was available to teachers.

KIRIS

KERA abolished the state's standardized testing program and mandated the development of an annual performance-based assessment. The Kentucky Instructional Results Information System (KIRIS) consists of three components: writing and math portfolios, a "transitional" test containing open-response questions requiring written answers, and group performance events with an individual written component. The open-response and portfolio portions of the test are weighted far more heavily than performance events, which account for less than 20 percent of the overall score. Student performance on KIRIS is judged in terms of four performance categories: novice, apprentice, proficient, and distinguished.

KERA was conceived as a unified, systemic reform in which all the pieces would work together to ensure that all students acquire higher-order skills and concepts. ***After five years, KERA implementation in the four districts is primarily strand by strand,*** rather than integrated. At this early stage of reform, educators are ***concentrating on the practicalities of implementation rather than on the philosophical underpinnings*** of the reform. The scope of the reform and the rapid phase-in of its many parts, built into the legislation itself, reinforced this piecemeal implementation. Educators were required to implement new programs quickly, often without adequate professional development, time for planning, or an understanding of the philosophy undergirding either the reform package itself or its many parts. In addition, the Kentucky Department of Education was reorganized in 1991—as mandated by KERA—the same time that districts needed the most assistance with KERA implementation.

At the conclusion of the study's first five years, ***different parts*** of the reform package ***are being implemented with widely varying degrees of proficiency and philosophical acceptance***. Only a few of the KERA innovations are well integrated into school culture. (See box on categories of implementation and acceptance, p. 3.)

Local ***educators have too little time to reflect*** on the KERA innovations ***and understand*** how the strands were designed to work together. Rather, time demands for implementing one strand conflict with time demands for implementing another. For instance, during the primary program's planning and first year of implementation, few primary teachers felt they had the time to run for positions on school councils; faculty at some schools reported postponing school-based decisionmaking (SBDM) adoption until primary teachers had time to participate.

Professional development opportunities generally increased in number and quality as a result of KERA. One-shot workshops, however, continue to be the predominant form of professional development. Moreover, many teachers were overwhelmed by the amount of training they received, felt they needed time to try out new strategies in their classrooms before learning more, and resented the amount of time they were required to spend away from their students to receive professional development. In general, teachers preferred being taught by practitioners who had actual classroom experience with the innovation. One of the four study districts was frequently successful with the training-of-trainers strategy, so that teachers received much of their professional development from their peers. Teachers who had been trained to train others, however, were sometimes resented by their colleagues and often did not have time to share with their peers what they had learned.

Communication among teachers increased in the study schools through their work on school-based decisionmaking councils, school and district committees, and student portfolios. Also, classroom and special education teachers collaborate more, as pullout programs for special education students decrease. Team teaching and instructional collaboration among regular classroom teachers, however, occurred irregularly and in only a few places.

Parent involvement in education increased, prompted by required parent participation in the primary program, school-based decisionmaking, superintendent screening committees, and family resource and youth services centers. In general, however, ***a barrier still exists between schools and parents, and parent involvement in school-based decisionmaking is often token.***

Degrees of Implementation and Acceptance of Various KERA Reforms

Considerable degree of implementation and acceptance: Becoming institutionalized; educators see and value the benefits of the innovation; most often areas of intense professional development; fit teachers' preexisting beliefs; would probably continue without KERA mandate.

- Specific, child-centered instructional practices in primary program
- General shift of governance to school level, though not necessarily through formal SBDM
- Increased emphasis on writing throughout the curriculum

Moderate degree of implementation and acceptance: Implemented without much philosophical change; fit teachers' preexisting beliefs; might not continue without KERA mandates and funding.

- Parent involvement in primary program
- Open-response questions
- Family resource centers and youth services centers
- Extended school services program

Moderate degree of implementation but not well accepted: Generally implemented, but not necessarily seen as needed; insufficient professional development; might not continue without KERA.

- Multiage grouping and authentic assessment in the primary program
- Curriculum additions to ensure students were taught subjects tested on the KIRIS
- Parent involvement in school-based decisionmaking

Not well implemented or accepted: Most challenging of the innovations; educators either did not believe in them or did not understand them.

- Continuous progress and professional teamwork in the primary program
- Integration of instruction and assessment
- Acceptance of the philosophy that all children can achieve at high levels

Use of school-based decisionmaking councils and qualitative reporting in the primary program were difficult to categorize; the degree of implementation in different districts and schools varies widely.

Updated Research Findings Describe Effective Practices to Improve Student Performance

How can a teacher, principal, or district administrator quickly identify research-based practices that can help them achieve their goals of improving student performance? A document compiled by the Northwest Regional Educational Laboratory (NWREL) summarizes findings from more than 1000 studies on effective schooling practices that foster positive student achievement, attitudes, and social behavior.

The material is divided into practices for use in the classroom, the school, and the district. Each section is further broken down into general headings followed by a statement of a good practice and the actual research findings. For example, a teacher might look in the section on "classroom characteristics and practices" under "planning and learning goals" in order to learn how to use effective planning to make the most efficient use of learning time.

The authors of the research studies are cited with each cluster of practices. NWREL is not able to supply the actual research documents; however, a bibliography provides journal citations and ERIC Clearinghouse reference numbers for those who want to study the original research in more detail.

First published in 1984 and updated in 1990, the publication contains some 59 topics and more than 450 practices. The 1995 findings augment topics from the previous editions and cover new areas of more recent research. Among the new topics in this edition are fostering resiliency, intergroup harmony, attitudes and skills for workplace readiness, and collaboration with community agencies to assist families.

The research synthesis is part of NWREL's *School Improvement Research Series IX.* Also part of this series are close-ups on peer tutoring and reducing the dropout rate, and briefs that highlight existing successful practices in schools around the country, including a tech prep program in Maryland and total quality management principles in use in an Alaska high school.

Ordering Information: *School Improvement Research Series—Series IX, 1994-95* (including the *Effective Schooling Practices Research Synthesis)* is available from the Northwest Regional Educational Laboratory, Office of Marketing, 101 S.W. Main Street, Suite 500, Portland, OR 97204-3297 (cite order no. NL-1095-AR, $27.70; the *Research Synthesis* alone is $5.80).

Array of Standards, Benchmarks Help Guide Teachers' Decisions About Curriculum & Assessment

Researchers John S. Kendall and Robert J. Marzano of the Mid-continent Regional Educational Laboratory provide educators with an important and timely resource—a comprehensive guide that makes sense of standards to guide educators' curriculum and assessment decisions. "Unless standards and benchmarks are presented in a roughly equivalent and usable format, decisions regarding curriculum or assessment can quickly become problematic," warn Kendall and Marzano.

Using numerous sources, the publication compiles standards in a variety of content areas, along with the standards' component benchmarks—mileposts for what students in various grades should know and be able to do to eventually reach the goal of the standards.

The volume lists 194 standards and 2,787 benchmarks in science, math, history, geography, the arts, language arts, and health, as well as in skill areas such as thinking and reasoning, working with others, and self-regulation. What's more, Kendall and Marzano have categorized the benchmarks according to the type of knowledge or skill each requires.

Specifically, each benchmark calls for students to grasp at least one of three types of fundamental knowledge: (1) procedural knowledge of processes, such as reading a map; (2) declarative knowledge of concepts and their component parts, such as knowing that a democracy requires that citizens make decisions and that each person has a single vote; and (3) contextual knowledge of when to use certain tools, such as determining when to use a map instead of a globe.

The researchers recommend a number of ways schools and districts can use standards and benchmarks. Educators can frame their curriculum around specific standards and component benchmarks; construct their own standards based on procedural, declarative, and contextual benchmarks listed in the book; or consider benchmarks loosely as exemplars of the standards.

Ordering Information: *The Systematic Identification and Articulation of Content Standards and Benchmarks: Update 1995* is available from the Mid-continent Regional Educational Laboratory, 2550 S. Parker Rd., Suite 500, Aurora, CO 80014 (cite order no. ML-1 195-AR, 601 pages, $24.95 prepaid).

Developing and Implementing Alternative Assessment Demands Expenditures and Indirect Costs

The full cost of developing and implementing state- or districtwide alternative assessments includes both the actual expenditures, as well as the indirect costs of additional time and other hard-to-measure intangibles. Fiscally conscious policymakers need both to guide decisionmaking.

States and districts incur costs in researching alternative assessment ideas—such as portfolios, demonstrations, and computer simulations—and developing their own versions, says Lawrence O. Picus of the National Center for Research on Evaluation, Standards, and Student Testing.

For example, a state or district spends money and resources creating, writing, testing, and evaluating assessment items. It then needs to train educators how to administer the assessment as well as teach the material that the new assessment covers.

Other expenditures include training raters to score the assessments. These expenditures can be high, especially if a large number of raters, perhaps throughout a state, are to score consistently. States and districts also need funds to report the assessment results to schools, students, and the public; to interpret the results; and to evaluate the assessment program itself.

Indirect costs are much more difficult to estimate but still essential to consider, maintains Picus. For example, the time required to help students work on the alternative assessment may come from teachers' personal schedules, from other school-related activities such as site-based management, or from other instruction.

"If, as is often the case in education," concludes Picus, "there are multiple goals established for an alternative assessment program, then estimation of the costs of that program must include all of the resources necessary to accomplish all of those goals."

Ordering Information: *A Conceptual Framework for Analyzing the Costs of Alternative Assessment* is available from the National Center for Research on Evaluation, Standards, and Student Testing, Graduate School of Education & Information Studies, University of California, Los Angeles, CA 90024-1522 (cite order no. TR-384, 34 pages, $4 plus shipping and handling, prepaid; CA residents add 8.25% sales tax).

Sustained Policy Support Needed If Links with Rural Schools Are to Revitalize Communities

Rural communities, many in dire need of revitalization due to the economic shifts of the last decade, are realizing that youth are among their greatest resources. Many communities are already developing strong links with their schools to provide students with community-based learning experiences that contribute to the community's development.

These mutually beneficial approaches involve viewing the school as an all-around community center, emphasizing the study of the community in curriculum, and developing entrepreneurial skills in students so that they can meet the community's service needs.

However, because these approaches are not considered "traditional elements of schooling," building strong partnerships is still a challenge. It is imperative, argues researcher Bruce Miller, to develop policy support throughout the community to ensure the lasting success of such programs.

In a publication by the Northwest Regional Educational Laboratory, Miller examines policy's important role in legitimizing, institutionalizing, and sustaining community-based learning. Policy, Miller adds, leads to a commitment of resources and provides a legal basis to garner further support from the private sector.

"By starting with the premise that community needs and school needs are interrelated, we create opportunities to explore ways that students and the school could address community needs while helping students learn valuable life skills," Miller says.

Toward this end, the report recommends strategies for developing effective policy support: namely, to rely on youth (those most directly affected) as advocates; build coalitions; be patient, persistent, and thorough in the quest for support; educate public officials; and use the budgeting process as a policy tool.

Ordering Information: *The Role of Rural Schools in Community Development: Policy Issues and Implications* is available from the Northwest Regional Educational Laboratory, Office of Marketing, 101 S.W. Main Street, Suite 500, Portland, OR 97204-3297 (cite order no. NL-1 195-AR, 16 pages, $4.30 prepaid).

Guide Offers Range of Ideas to Help Prevent Violent Events in the School and Community

With violence in schools and neighboring communities on the rise, many schools, especially in urban areas, are wondering what they can do to reduce violent crime. A document from the Regional Laboratory for Educational Improvement of the Northeast and Islands provides a wealth of ideas.

Researcher Amani Wilson suggests:

- **Focus on prevention instead of punishment,** particularly corporal punishment. Educators ought to consider peer counseling, mediation, and conflict resolution programs. For example, Wilson cites an elementary school that's having students mediate conflicts between other students.
- **Train teachers to recognize the signs of students' stress and trauma** that often precede violence. Training is particularly important since these symptoms aren't always obvious, explains Wilson. Once teachers notice stress and trauma, ties with community medical and mental health facilities can ensure they'll make appropriate referrals.
- **Create teacher support groups** or refer teachers to general assistance centers to work through the stress of confronting violence. Teachers might role-play violent events with each other. "Rehearsal and familiarization with the consequences of potential events occurring in and around these schools could well minimize the impact of psychological or physical trauma."
- **Consider the community** in prevention efforts, since violence in the school is often a reflection of violence in the community. Better communication between schools and parents can improve parental trust and instigate further cooperation, special staff can serve as liaisons to the community, and schools can target after-school activities to at-risk youth.

Ordering Information: *Violence and Traumatic Stress in Urban Schools* is available from The Regional Laboratory for Educational Improvement of the Northeast and Islands, 300 Brickstone Sq., Suite 950, Andover, MA 01810; 800/347-4200 (cite order no. 9421 02, 19 pages, $4 plus $2.50 shipping and handling, prepaid).

NAEP May Not Be Categorizing Students Into Appropriate Ability Levels in Mathematics

Every two years, students in Grades 4, 8, and 12 take the National Assessment of Educational Progress (NAEP), a test of students' knowledge and ability in several areas, including mathematics. A report by the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) finds that NAEP's characterizations of what students know and can do in math may not be accurate.

Several years ago, the National Assessment Governing Board set standards for students in each grade, with corresponding descriptions of student performance at basic, proficient, and advanced achievement levels. Students in the 1992 NAEP were categorized according to these levels, based on their assessment results.

CRESST's researchers identify three problems with the assessment. First, NAEP's descriptions for the three skills levels—basic, proficient, and advanced—are not clear. For example, NAEP expects basic-level fourth-grade students to "estimate with whole numbers" and proficient students to "[use] whole numbers to estimate." Some speculate that such ambiguity makes it difficult to apply the descriptors with any consistency.

Second, some skills identified by the achievement-level descriptions received little or no attention in assessment questions. Thus, judges felt that these skills were not assessed at all.

Furthermore, students at a given achievement level were often unable to answer test items linked to that level's descriptions. In some cases, they scored better on items linked to a higher-level description.

The researchers recommend realigning the achievement-level descriptions with the assessment framework.

Ordering Information: *Mapping Test Items to the 1992 NAEP Mathematics Achievement Level Descriptions: Mathematics Educators' Interpretations and Their Relationship to Student Performance* is available from the National Center for Research on Evaluation, Standards, and Student Testing, Graduate School of Education and Information Studies, University of California, Los Angeles, CA 90024-1522 (cite order no. TR-393, 129 pages, $3.50 plus shipping, prepaid; CA residents add 8.25% tax).

AEL and ERIC/CRESS Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Use this form to order materials from AEL, as well as from the ERIC Clearinghouse on Rural Education and Small Schools. Please check (✓) your selections, and complete the shipping information at the bottom of page 3. **Be sure to include payment for priced items.**

Vol. 15, No. 1 • Spring 1996

(fold here)

From: (please print legibly)

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage Required

DISTRIBUTION CENTER
AEL
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL (free unless priced)

Notes from the field: Education reform in rural Kentucky

___**Five years of education reform in rural Kentucky, Vol. 5, No. 1 (1996)** This publication provides ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. The most recent issue summarizes findings of AEL's five-year study. Findings are reported in two major sections—those that cut across KERA strands, and those that are specific to particular KERA strands. $2, 8 pp. (See article on p. 1.)

ERIC Digests

Digests are two-page summaries of the education literature on a specific topic, including a reference list. Digests are brief, informative, easy to read, and FREE.

___ *Making the A: How To Study for Tests*, by Diane Loulou, ERIC Clearinghouse on Assessment and Evaluation, 1995

This digest offers a plan to help in preparing for tests and explains how to study for and take tests. Regular review reduces test anxiety and allows time for information to be absorbed. For some subjects, study groups are an effective tool, if groups are composed of dedicated students. Specific advice is given for multiple-choice, true-false, open-book, short-answer, and essay tests.

___ *The Program Evaluation Standards*, ERIC Clearinghouse on Assessment and Evaluation, 1995

This digest summarizes the program evaluation standards established by 16 professional associations. The standards identify four principles that should result in improved program evaluations:

- **utility**, intended to ensure that the evaluation will serve the information needs of intended users;
- **feasibility**, intended to ensure that the evaluation will be realistic, prudent, diplomatic, and frugal;
- **propriety**, intended to ensure that the evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by the results; and
- **accuracy**, intended to ensure that the evaluation will reveal and convey technically adequate information about features that determine the worth or merit of the program being evaluated.

___ *School-Based Management*, by Jori Jo Oswald, ERIC Clearinghouse on Educational Management, 1995

This digest summarizes some of the recent research regarding school-based management (SBM). In particular, it addresses two questions: (1) Is SBM working, and (2) What can schools changing to an SBM system do to ensure success? Information is presented on what type of SBM system works best, research on SBM success, problems encountered in an SBM system, responsibilities of stakeholders, and how to change to an SBM system.

___ *Teacher Education in Global and International Education*, by Merry Merryfield, ERIC Clearinghouse on Teaching and Teacher Education, 1995

To meet the economic, political, and social challenges of today's world, teacher education in global and international education is now mandated by the National Council for Accreditation of Teacher Education (NCATE). Following a discussion of ways in which teaching with a global perspective differs from traditional approaches, considerations for educating teachers are noted. Included are (1) global knowledge about the world in general, as well as content specific to subjects the future teachers will teach; (2) simulated as well as personal cross-cultural experiences at home and abroad; (3) content and experiences infused throughout teacher education programs; (4) the controversial nature of global and international education; and (5) curricular connections between global education and multicultural education.

___ *Language Diversity and Language Arts*, by Carol Nelson, ERIC Clearinghouse on Reading, English, and Communication, 1995

This Digest offers practical strategies for language arts teachers to use when working with language-diverse students in the classroom and discusses some recent research on the subject. The Digest presents several classroom case studies of coping strategies used by teachers and students. Particular care in choosing classroom reading materials is suggested, as well as judicious use of resource persons from the surrounding community.

___ *Reconceptualizing Professional Teacher Development*, ERIC Clearinghouse on Teaching and Teacher Education, 1995

This digest highlights ways new and seasoned teachers are developing a repertoire of skills and knowledge that complement education reform efforts. For example, rather than seeing each stage of a teacher's professional life as distinct and separate, a more holistic view of the development of teacher from novice to advanced practitioner is recommended. New concepts that have emerged in the past decade include professional development, partner, or clinical schools; education partnerships; and mentoring programs. Societal issues such as crime, drug and alcohol abuse, poverty, homelessness, and child abuse have also influenced how teachers practice and are trained. To meet these challenges, greater collaboration between social service providers and educators has become necessary.

___ *Professional Teacher Development and the Reform Agenda*, by Mary E. Dilworth and David G. Imig, ERIC Clearinghouse on Teaching and Teacher Education, 1995

One of the National Education Goals (added in 1994) focuses on teacher education and professional development, suggesting that practicing teachers are key to the transformation of schools. This digest identifies schools of education, teacher licensing, and teacher certification as areas integrally tied to enhanced teaching and therefore essential to professional development. Emphasis is placed on forging new relationships between schools and schools of education and focusing attention on professional development and the establishment of new regulatory policies for licensing and relicensing teachers. The digest points out that the term "teacher certification" has recently come to have the same meaning in education as it does in other professions—a designation of advanced practice in a specialized area.

___ *Professional Standards Development: Teacher Involvement*, by Ismat Abdal-Haqq, ERIC Clearinghouse on Teaching and Teacher Education, 1995

This digest provides a brief overview of the work of several influential standards-setting bodies established during the last decade and summarizes the primary ways in which classroom teachers participate in deriving, testing, implementing, and evaluating standards.

ERIC/CRESS Publications

American Indian Education

- __ *Indian Nations At Risk: Listening to the People.* Patricia Cahape & Craig B. Howley (Ed.). 1992. 116 pp. $10.00
- __ *Joining the Circle: A Practitioners' Guide to Responsive Education for Native Students.* Agnes Grant & LaVina Gillespie. 1993. 62 pp. $10.00
- __ *Native Education Directory: Organizations and Resources for Educators of Native Peoples of the United States and Territories.* ERIC/CRESS and Native Education Initiative of the Regional Educational Laboratories. 1993. 65 pp. ~~$12.00~~ now $6.00.

Mexican American Education

- __ *Doing Our Homework: How Schools Can Engage Hispanic Communities.* Andrea B. Bermúdez. 1994. 92 pp. $12.00
- __ *Thorough and Fair: Creating Routes to Success for Mexican-American Students.* Alicia Sosa. 1993. 50 pp. $10.00

Migrant Education

- __ *Educating Undocumented Children: A Review of Practices and Policies.* John Willshire Carerra. 1989. 42 pp. ~~$7.50~~ now $3.75

Outdoor Education

- __ *In Our Own Words: Community Story Traditions to Prevent and Heal Substance Abuse.* Michael Tierney. 1992. 65 pp. ~~$10.00~~ now $5.00
- __ *Lasting Lessons: A Teacher's Guide to Reflecting on Experience.* Clifford E. Knapp. 1992. 118 pp. $12.00
- __ *Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning.* Clifford E. Knapp. 1995. 120 pp. $12.00

Rural Education/Small Schools

- __ *The Distance Education Handbook: An Administrator's Guide for Rural and Remote Schools.* Bruce Barker. 1992. 65 pp. ~~$10.00~~ now $5.00
- __ *Local Schools of Thought: A Search for Purpose in Rural Education.* Clark D. Webb & Larry K. Shumway with R. Wayne Shute. 1996. 80pp. $12.00
- __ *Managing Smallness: Promising Fiscal Practices for Rural School District Administrators.* Deborah Inman Freitas. 1992. 74 pp. ~~$10.00~~ now $5.00
- __ *Systemic Reform in Six Rural Districts: A Case Study of First Reactions to the Kentucky Education Reform Act of 1990.* Pamelia Coe & Patricia Kannapel. 1991. 69 pp. $10.50

Other

- __ *A Parent's Guide to the ERIC Database: Where to Turn With Your Questions About Schooling* (Revised Edition). Craig Howley, Phyllis Stowers & Patricia Cahape. 1992. 81 pp. ~~$10.00~~ now $5.00
- __ *Overcoming Risk: An Annotated Bibliography of Publications Developed by ERIC Clearinghouses.* Wendy Schwartz & Craig Howley. 1991. 94 pp. $10.50

2/96

Briefs for Parents (free)

These typeset articles are **ready to pasteup in your newsletter, newspaper, or periodical.** Clearly and briefly, each article addresses an education topic of concern to parents. **They are available free** (limit one copy of each set per order). To order, check (✓) the set(s) you wish to receive.

1995 Briefs for Latino Parents:

____ Six articles in Spanish ____ English translation

____ 1996 Briefs for English-Speaking Parents

Shipping Information

All prices include shipping and handling.

__ I have enclosed a check or money order (drawn on a U.S. bank) made payable to ERIC/CRESS in the amount of $__________ (U.S.) for the items selected.

__ I have enclosed an institutional purchase order (No. ________________) in the amount of $__________ (U.S.) for the items selected, in lieu of prepayment.

Name ____

Address ____

____

Telephone ____

(in case we have a question about your order)

ERIC/CRESS
P. O. Box 1348, Charleston, WV 25325-1348

ERIC/CRESS Digests—free; check (✓) the Digests you want and fill out the form on other side.

AMERICAN INDIAN/ALASKA NATIVE EDUCATION

___ *American Indian/Alaska Native Learning Styles: Research and Practice.* K. Swisher (1991), EDO-RC-91-4

___ *American Indians and Alaska Natives in Higher Education: Research on Participation and Graduation.* D. M. Pavel (1992), EDO-RC-92-2

___ *Assessment for American Indian and Alaska Native Learners.* R. Bordeaux, Ed.D. (1995), EDO-RC-95-6

___ *Blueprints for Indian Education: Improving Mainstream Schooling.* R. A. Butterfield (1994), EDO-RC-94-2

___ *Blueprints for Indian Education: Languages and Cultures.* W. Demmert (1994), EDO-RC-94-3

___ *Blueprints for Indian Education: Research and Development Needs for the 1990s.* P. Cahape (1993), EDO-RC-93-02

___ *The Current Condition of Native Americans.* H. Hodgkinson (1992), EDO-RC-92-7

___ ★ *Drop-Out Rates Among American Indian and Alaska Native Students: Beyond Cultural Discontinuity.* R. St. Germaine (1995), EDO-RC-96-1

___ *The Emerging Role of Tribal College Libraries in Indian Education.* D. M. Pavel (1992), EDO-RC-92-4

___ *Fighting Alcohol and Substance Abuse Among American Indian and Alaska Native Youth.* N. Gale (1991), EDO-RC-91-8

___ *Using Literature. American Indians and Alaska Natives in Secondary Schools.* A. Grant & L. Gillespie (1992), EDO-RC-92-6

MEXICAN-AMERICAN EDUCATION

___ *Facilitating Postsecondary Outcomes for Mexican Americans.* J. LeBlanc Flores (1994), EDO-RC-94-4

___ *Forging Partnerships Between Mexican American Parents and the Schools.* N. F. Chavkin & D. L. Gonzalez (1995), EDO-RC-95-8

___ *Hispanics in Higher Education: Trends in Participation.* J. Chahin (1993), EDO-RC-93-05

___ *Integrating Mexican-American History and Culture Into the Social Studies Classroom.* K. Escamilla (1992), EDO-RC-92-5

___ *Mexican American Women: Schooling, Work, and Family.* F. I. Ortiz (1995), EDO-RC-95-9

___ *Mexican Immigrants in High Schools: Meeting Their Needs.* H. Romo (1993), EDO-RC-92-08

___ *Use of the Spanish Language in the United States: Trends, Challenges, and Opportunities.* S. Santiestevan (1991), EDO-RC-91-2

MIGRANT EDUCATION

___ *Family Lives and Parental Involvement in Migrant Students' Education.* N. F. Chavkin (1991), EDO-RC-91-3

___ *Health Problems Among Migrant Farmworkers' Children in the U.S.* G. Huang (1993), EDO-RC-93-01

___ ★ *Instructional Strategies for Migrant Students.* V. Menchaca & J. Ruiz-Escalante (1995), EDO-RC-95-10

___ *Literacy Education for Adult Migrant Farmworkers.* K. J. Bartlett and F. O. Vargas (1992), EDO-LE-91-05

___ *Migrant Farmworkers and Their Children.* P. Martin (1994), EDO-RC-94-7

___ *Migrant Students Who Leave School Early: Strategies for Retrieval.* A. Salerno (1991), EDO-RC-91-7

___ *Reauthorized Migrant Education Program: Old Themes and New.* A. Wright (1995), EDO-RC-95-1

OUTDOOR/EXPERIENTIAL EDUCATION

___ *Changing Schools Through Experiential Education.* P. W. Stevens & A. Richards (1992), EDO-RC-91-13

___ *Improving Evaluation in Experiential Education.* B. Hendricks (1994), EDO-RC-94-8

___ *Outdoor Education and Troubled Youth.* D. S. Berman & J. Davis-Berman (1995), EDO-RC-95-5

___ *Outdoor Education Directory: Organizations Involved in Outdoor Experiential Education* (1993)

___ ★ *Recommended Competencies for Outdoor Educators.* M. Richardson & D. Simmons (1996), EDO-RC-96-2

___ *Thinking in Outdoor Inquiry.* C. E. Knapp (1992), EDO-RC-92-3

RURAL EDUCATION

___ *The Academic Effectiveness of Small-Scale Schooling (An Update).* C. B. Howley (1994), EDO-RC-94-1

___ *Charting New Maps: Multicultural Education in Rural Schools.* J. P. Oliver & C. Howley (1992), EDO-RC-92-1

___ *Cultivating Resilience: An Overview for Rural Educators and Parents.* M. Finley (1994), EDO-RC-94-5

___ *Developing Supplemental Funding: Initiatives for Rural and Small Schools.* R. Carlson (1993), EDO-RC-93-4

___ *Efficient Financial Management in Rural Schools: Common Problems and Solutions from the Field.* D. Inman-Frietas (1991), EDO-RC-91-9

___ *Funding Rural, Small Schools: Strategies at the Statehouse.* D. Verstegen (1991), EDO-RC-91-10

___ *Integrated Services: A Summary for Rural Educators.* M. N. Lutfiyya (1993), EDO-RC-92-09

___ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

___ *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* G. Huang (1995), EDO-RC-95-2

___ *Recent Trends in Rural Poverty: A Summary for Educators.* G. Huang & C. Howley (1991), EDO-RC-91-1

___ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

___ *Rural Philosophy for Education: Wendell Berry's Tradition.* P. Theobald (1992), EDO-RC-91-12

___ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

___ *What Can I Become? Educational Aspirations of Students in Rural America.* T. Haas (1992), EDO-RC-91-11

SMALL SCHOOLS

___ *Small Scale and School Culture: The Experience of Private Schools.* G. E. Conway (1994), EDO-RC-94-6

___ *Teaching and Learning in the Multigrade Classroom: Student Performance and Instructional Routines.* B. Miller (1991), EDO-RC-91-6

OTHER

___ *School Completion 2000: Dropout Rates and Their Implications for Meeting the National Goal.* C. Howley & G. Huang (1991), EDO-RC-91-5

★ new—published in 1996 or late 1995

INSIDE AEL

Celebrating 30 Years of Service— New Contract Supports Variety of Work Across Region

This year, AEL celebrates 30 years of service to its Region and embarks on a new five-year contract for the Regional Educational Laboratory. The new contract brings with it some slight changes—mostly internal. Educators and others in the four states can expect to receive the same quality of R&D-based products and services they've come to identify with AEL for these many years.

A new Board- and staff-developed mission statement will guide the Laboratory's work into the next century. The mission embodies the essence of AEL's work—to ***link the knowledge from research with the wisdom from practice to improve teaching and learning***.

The Laboratory's work can be thought of as applied research and development, information exchange, technical assistance, professional development, and evaluation and planning. Many efforts include several or all of these functions at different times.

Several new ***applied research and development*** activities are just now getting underway. AEL will assist each of the Region's state departments of education in an R&D project that complements the state's education initiative (see Around the Region, p. 10). Another set of activities—the Network of Inquiry Learning and QUEST (Questioning and Understanding to Enhance School Transformation)—will involve school personnel from across the Region in the design and testing of processes to help local school communities develop capacities for undertaking continuous improvement.

Teacher action research also continues into the next five years and builds on AEL's 10 years of experience in that area. Working collaboratively with teacher associations and colleges and universities, AEL will sponsor and facilitate groups of practicing teachers who will use action research methods to investigate a problem or issue significant to their individual teaching.

AEL will also support applied research and development studies in rural education. New efforts will result in materials and processes that enable rural schools and communities to improve school readiness of preschool children, school-to-work opportunities of secondary students, and academic achievement of all students.

Finally, AEL will continue its highly acclaimed, long-term study of the implementation of the Kentucky Education Reform Act. The work is intended to analyze the effects of the reform on rural school districts.

Information exchange at AEL includes both giving and gathering information. Providing a wide variety of R&D-based information to educators and others remains a high priority of AEL's work. A comprehensive School Services Center expands several familiar AEL services—free searches of the ERIC database, access to specialized periodicals, research syntheses, information search packages on timely topics—to include on-line searchable databases of hot topic subject files, of regional training opportunities and technical assistance providers, and of state and regional promising practices and programs. State policymakers remain an important audience for specialized information and assistance.

Two new roles for key staff will facilitate information exchange with the Region. AEL ***liaisons*** will link with particular groups and associations concerned about education. ***State coordinators*** will keep abreast of key events and issues in their assigned states. Also, an annual education issues forum, to be hosted in each state, will keep AEL informed about issues in the Region, helping the Laboratory provide timely information and assistance.

Educators across the four states are familiar with AEL's ***technical assistance*** services. Laboratory staff are accessible to provide consultation on-line, by telephone, and on-site.

Professional development opportunities have been mainstays of the Laboratory's work over the years. Training in two AEL-developed school improvement processes—Questioning and Understanding to Improve Learning and Thinking (QUILT) and Integrated Teamed Instruction—will continue to be offered, as will professional development materials on such topics as curriculum integration, authentic assessment, and teaching marginal learners. In addition, AEL will provide access to training developed at other Regional Educational Laboratories.

As a research and development organization, AEL values data-based decisionmaking. Evaluation of programs and processes and systematic planning for future activities are a large part of each Laboratory-developed project. The ***evaluation and planning*** expertise of Laboratory staff is made available to education and education-related agencies throughout the Region on a contractual basis.

Finally, AEL will provide national leadership for R&D activities that will inform efforts to improve education in rural communities. Chosen to serve as the Regional Educational Laboratory with a rural speciality, AEL will carry out activities designed to inform the debate about rural education nationwide.

For more information about the new five-year plan of work, please contact aelinfo@ael.org or call 304/347-0400 or 800/624-9120.

The Quarterly Sampler— Some of the Best from ERIC/CRESS

Throughout the year, the ERIC Clearinghouse on Rural Education and Small Schools reviews thousands of articles and documents for possible inclusion in the ERIC database. In addition to rural education and small schools, ERIC/CRESS specialty areas include American Indians and Alaska Natives, migrant education, the education of Mexican Americans, and outdoor education.

The redesign of our Web page is nearly complete; check it out at the following URL—http://www.ael.org/~eric/eric.html. Not only does the Web page provide access to Clearinghouse resources in its specialty areas, and ERIC system resources generally, but it has links to nearly 80 related organizations. Drop by!

All of the resources listed below are now available in microfiche or paper copy (usually both). Readers can order any of the resources directly from ERIC Document Reproduction Service (EDRS), 7420 Fullerton Road, Suite 110, Springfield, VA 22153-2852; 800/443-3742 (E-mail: edrs@gwuvm.gwuvm.gwu.edu).

Telephone orders may be charged to your VISA or Mastercard. When you call, simply give the "ERIC Document Number" (for example, ED387199) to the EDRS representative. You may also use the toll-free number to have EDRS calculate the price so you can mail your order with a check.

If you are interested in other information within the scope of ERIC/CRESS, or if you would like to have Clearinghouse staff conduct a free search of the ERIC database on a topic, call User Services at ERIC/CRESS (1-800/624-9120) from anywhere in the nation. You can also reach the ERIC/CRESS coordinator of services and acquisitions, Berma Lanham (E-mail: lanhamb@ael.org).

Rural Teachers, Students Learn To Value Diversity. ED377023 Jacqueline D. Spears, Kansas State University, Manhattan.

Rural counties are among both the most and the least ethnically diverse, conditions that offer different but equally compelling rationales for multicultural education. Diverse communities need to acknowledge their cultural wealth, creating community structures that respect differences and build on the strengths of each culture. Homogeneous communities need to import diversity, creating structures to explore how to function with cultures different from their own. Pilot projects in eight rural schools in Washington and Arizona demonstrate the different community contexts in which multicultural reform must act. In two elementary schools with rapidly growing Hispanic populations, change strategies have involved extensive staff development and efforts to increase parent participation. Three American Indian schools are integrating their own cultures into the curriculum, while connecting students to other cultures, through student and teacher exchanges with each other and with two other project schools having primarily Anglo populations. In addition to the exchanges, the two Anglo schools are offering students, parents, and staff a menu of opportunities to increase multicultural awareness. Teachers at an ethnically diverse high school are focusing on making all students feel a valued part of the school. These schools have followed similar patterns of evolution, which begins as teachers deepen their cultural awareness within the context of ongoing school projects, and proceeds to a change in the overall school culture. The document contains a list of 16 organizations offering additional information on multicultural education.

Telecommunications and Its Impact on Rural America. ED379128. F. Oscar Hines, National Association of Development Organizations Research Foundation.

Applications of telecommunications technologies in rural businesses, schools, health care institutions, and government agencies can help make these institutions more efficient and effective, overcome problems of rural isolation, and diversify rural economies. This report considers some of the issues surrounding these possibilities and discusses the challenges raised by two requirements for such benefits to accrue: the need for a rural public telecommunications infrastructure that is capable of supporting advanced equipment and services at reasonable prices; and the need for communities to make informed decisions about the planning, purchase, implementation, and evaluation of new information technologies. Four primary goals are recommended: (1) a rural service delivery system comparable to the urban infrastructure in quality, availability, and cost; (2) adequate preparation of rural communities to plan for, implement, and evaluate new services and equipment; (3) access by rural communities to adequate capital financing and other sources of funding for equipment and services; and (4) telecommunications-related development strategies that are integrated with the larger economic development strategies of the community and region. More specific suggestions are also delineated. The report calls for a coordinated effort by telecommunications policy makers, the telecommunications industry, and economic development professionals to help achieve these goals.

The Urban-Rural Funding Disparity. ED374957. James E. McLean, Steven Ross. Paper to accompany presentation at the 1994 Annual Convention of the National Rural Education Association.

As part of litigation challenging the equity and adequacy of school funding in Alabama, educational resources and school conditions were examined in the highest and lowest funded school districts in the state. Identification of these districts revealed that all eight of the highest funded districts were urban systems, while all eight of the lowest funded districts were rural or county systems. Site visits to 45 schools in 15 of the above districts, interviews with principals, and a teacher survey produced completely consistent findings of clear disparities between rural and urban schools. Compared to urban schools, rural schools had less attractive physical plants and grounds, fewer educational resources in virtually all areas, fewer instructional offerings, and staffs that were more dispirited about their abilities to provide effective education under existing conditions. Particular educational and environmental disadvantages of rural schools included restricted opportunities for participating in outdoor athletics; discomforts caused by inefficient heating and cooling systems, old and dark school interiors, and dirty rest rooms lacking in basic supplies; cramped classrooms lacking sufficient textbooks and maps; and old and inadequate libraries and gymnasiums. In addition, rural teachers and principals reported staff and student involvement in fund raising, as well as a lack of funds for enrichment programs, professional development, teacher compensation for extra work, and for subjects such as drama and foreign languages.

★ [illegible]
★ Tennessee
[illegible]
★ West Virginia

AROUND THE REGION

AEL and State Education Leaders Design Joint Projects

AEL's current contract (1996-2000) with the U. S. Department of Education includes plans to carry out an applied research and development project in each of the four states served by the Laboratory. The projects were identified and jointly designed with each state's department of education leaders. Overviews of the projects comprise this quarter's "Around the Region."

Kentucky Educators and AEL to Design Professional Development for Improving Portfolios in Writing

The Kentucky Education Reform Act of 1990 (KERA)—the most sweeping statewide reform in the nation—has been in operation for the past five years. The first cycle of the high-stakes, performance-based state testing has been completed. This testing program, known as the Kentucky Instructional Results Information System (KIRIS), had a year of baseline testing in 1991-1992, followed by two years of testing for purposes of accountability. Writing and mathematics portfolios are kept by all students in the grade levels tested (Grades 4, 8, and 12), and the portfolio scores are part of a school's accountability index.

Over the first three years of KIRIS testing (1991-1994), about 100 schools were identified as consistently achieving large gains in writing portfolio scores. These schools were audited in light of this record, and their portfolio scores were found to be more reliable than scores from less successful schools, as well as more consistent with the scores given the portfolios by outside auditors. While portfolio scoring has been criticized by some as subjective and unreliable, objective evidence shows that these schools have been producing strong gains in portfolio writing.

To help all schools improve student performance, the Kentucky Department of Education has asked AEL to study what these successful schools are doing instructionally and to design a professional development training program for use with teachers statewide.

The study is guided by three objectives:

- To identify correlates of large gains in writing portfolio scores among the 100 identified schools and analyze ways to use this knowledge to improve professional development.
- To develop and field test professional development materials and procedures demonstrated to be effective in enabling teachers to (a) improve student writing and enhance learning through portfolio development and (b) accurately assess student portfolio work.
- To determine if this professional development program transfers to other areas of instruction.

In addition to the 100 successful schools, a random sample of less successful schools will also participate in identifying instructional practices that lead to gains in student achievement. An action research team of Kentucky educators will work with AEL to develop and field test a writing portfolio training program. Eight schools will participate in the testing, one from each service area of the state. AEL will help analyze field-test results, finalize the training program materials, and, with the department of education, disseminate the program both statewide and nationally.

Tennessee Educators Join AEL to Study Internet Use as Part of Meaningful Instruction

Classroom use of the Internet is emerging as a promising area, but so far no systematic knowledge exists about which sorts of instructionally relevant applications or activities are most effective.

To promote the use of telecommunications in schools, Tennessee's commissioner of education has launched an initiative to place all schools on the Internet by summer 1996. To help with this effort, the Tennessee Department of Education has asked AEL to investigate how successful teachers use the Internet in their classrooms and to develop materials to share their methods with others across the state.

The project has two objectives:

- To identify ways in which expert teachers use the Internet as a tool to enhance students' intellectual development.

- To produce a set of products that assists teachers in using the Internet as a tool to enhance students' intellectual development.

The project will consider the unique nature of schooling in Tennessee classrooms and will rely heavily on the best practices of the state's expert teachers. AEL will work closely with the state department of education throughout the project.

The project will be accomplished in three phases:

- First, a group of exemplary teachers known to use the Internet effectively in the classroom will be identified, observed, and interviewed to determine how they integrate the Internet with instruction.
- Second, a group of expert teachers will develop training materials to help other teachers use the Internet, and work with the department of education to field test the materials with teachers in classrooms.
- Finally, teachers will develop and implement strategies for scaling up Internet training to enhance teachers' success using the Internet in the classroom.

Virginia Educators and AEL to Design Technical Assistance System for Supporting Academic Achievement in High-Need Schools

Because of the trend toward greater local control of schools, state education agencies around the nation are shifting their emphasis from monitoring schools to providing support and technical assistance. The Virginia Department of Education has asked AEL to help develop a system the department can use to provide school divisions with technical assistance that supports academic achievement in high-need schools.

The initial focus of the project will be 12 Virginia school divisions where the initial pass rate on the Literacy Passport qualifying tests falls below 50 percent. Students must successfully complete the tests before they can receive a regular high school diploma. Poverty, ruralism, and history of low academic achievement pose great challenges for these divisions. Together, AEL and the department of education propose to help the 12 school divisions build local capacity for improvement.

Two objectives will guide the work:

- To devise a framework for delivering to high-need schools technical assistance that supports the academic achievement of all students.
- To develop and test a system that provides appropriate technical assistance to high-needs schools.

These objectives support a primary goal identified in Virginia's FY 95 Consolidated Plan to assist local education agencies' efforts to meet high academic standards and to provide opportunities for each child to succeed. Although the initial work will focus on the 12 school divisions identified by the department of education, later work will include high-need schools and divisions elsewhere.

AEL to Help West Virginia Educators Develop Model for Using Statewide Database to Inform School Decisions

West Virginia education officials have asked for AEL assistance with a relatively short-term effort. The work shows great promise for leveraging information available to school district and building personnel from the new West Virginia Education Information System (WVEIS)—a statewide system of education data.

By 1997, all of West Virginia's school districts will be on-line, giving districts, Regional Education Services Agencies, and the department of education access to the system, which includes student, employee, and financial information. The department of education has focused on getting schools and districts on-line; determining the common kinds of data fields to be used by everyone; and training WVEIS administrators and other users in security techniques, data entry, and the use of data.

West Virginia officials have asked AEL to explore how principals, superintendents, counselors, and central office staff can use the data to inform education decisionmaking. In the proposed one-year project, AEL will develop a model that will illustrate how educators in the field can use the system to answer school questions and address education issues.

Negotiations are now underway between AEL staff and West Virginia Department of Education officials for projects during FY 97 and beyond.

AEL Now Has Telephone Access for Hearing-Impaired

AEL's telephone capacity has recently been enhanced by the installation of a TDD communication device for use with the hearing-impaired. The direct dial number is 304/347-0401; the AEL receptionist can also transfer incoming calls from our 800 number. Please share this information with any hearing-impaired persons who could benefit from AEL's services.

Web Page Update!

We continue to update AEL's Web page. The next time you're browsing the Internet, be sure to pay us a visit (http://www.ael.org). As we go to press, AEL staff are in the process of adding new information and resources:

- AEL Products & Publications Catalog (searchable),
- National Science Foundation-sponsored projects,
- Region IV Comprehensive Assistance Center, and
- Technology Resources.

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (FAX)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board:
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Wohl

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit
Organization
U.S. Postage Paid
Permit No. 2560
Charleston
West Virginia
25301

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 15
No. 2
▪
Summer
1996

To Our Readers:

Welcome to our many new readers. We've just added more than 7,000 names to our mailing list, which puts at least one copy of *The Link* and *R&D Watch*—the publication found inside—in every school and school district throughout AEL's four-state Region.

If you've been receiving *The Link*, we hope you'll enjoy the addition of *R&D Watch*, which features the latest in education R&D from a variety of organizations across the country. *R&D Watch* replaces *R&D Notes*, an AEL publication sent to a much smaller audience.

Since this issue of *The Link* is reaching thousands of new readers, our lead story gives a brief overview of AEL, Inc. AEL offers a variety of programs and services through its Regional Educational Laboratory, ERIC clearinghouse, math/science consortium, comprehensive assistance center, and technology consortium. We invite you to check out the graphical "Welcome to AEL" presentation on our Web Site: http://www.ael.org.

AEL Mission to Link Knowledge from Research With Wisdom from Practice

The Appalachia Educational Laboratory, Inc. (AEL) is a nonprofit, regionally oriented education research and development institution. The work of the Laboratory is determined by its 28-member Board of Directors, made up of educators and others concerned about education in the four states served: Kentucky, Tennessee, Virginia, and West Virginia.

The organization's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL works closely with schools, school districts, and states to develop, test, and refine practical products and processes that address needs expressed by local educators. Resources thus developed are then available for sharing with others working on similar problems.

AEL's major work is funded through several federal contracts and grants from the U. S. Department of Education.

[continued on page 2]

In this issue:

INSIDE AEL
Need Information? Ask the Resource Center, p. 2
Political Forces Affect Superintendent's Role, p. 3
Inclusion of Special-Needs Students, p. 3
Interdisciplinary Teamed Instruction Institute, p. 3

FOCUS ON INSTRUCTION
A "Standard" Classroom, p. 4
Of the Teachers, By the Teachers, p. 5

AROUND THE REGION
Listening to the People—Communities Speak to AEL About Local Education Issues, p. 6
Kentucky Writing Portfolio Project Takes New Slant, p. 6
AEL a Partner in NSF's Systemic Initiative in Rural Appalachia, p. 6

NOTEWORTHY
Communication from the School Increases Parents' Confidence and Support for Kids' Learning, p. 7
AEL Project Helps Get Children Ready to Learn, p. 7
Weekly Guides Help Families Become Involved in Children's Learning, p. 7
Regional Labs Present Their Best Programs at Potpourri Conference, p. 8

AEL celebrating
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

AEL—The Regional Educational Laboratory

The Regional Educational Laboratory is one of 10 Regional Labs located across the country. Working with educators in the Region, the Laboratory conducts applied R&D, designs R&D-based training programs, develops new processes and products through systematic R&D methods and strategies, evaluates education programs, serves as a neutral convener of state or regional groups, studies the implementation of state policies, and synthesizes and provides R&D-based information.

Eisenhower Regional Consortium for Mathematics and Science Education

The Eisenhower Regional Consortium for Mathematics and Science Education works with state steering committees of mathematics and science teachers and educators to customize its work in each state. The Consortium designs professional development training that reflects national standards and state curriculum frameworks, gives teachers greater access to technology, trains teachers in classroom applications of technology, and serves as a communications link to inform teachers of opportunities and resources related to reform.

Need Information? Ask AEL's Resource Center!

Information may be available, but finding it can be a real problem. That's where AEL's Resource Center can help. Through computerized databases and resources on hand in our facility, AEL can help locate the information you need. The Center's ERIC microfiche collection contains more than 450,000 titles. The Center also houses more than 2,000 education-specific resources. Subject files are also on hand. Nearly any of these resources can be in your hands within a week to 10 days—free for the asking.

Here's how. When you have a need for information, call the Resource Center, describe your need, and the information specialist will search the educational literature for available resources.

Who can receive this service? Any educator from the four states served by AEL (KY, TN, VA, WV) can request an information search.

ERIC Clearinghouse on Rural Education and Small Schools

The ERIC Clearinghouse on Rural Education and Small Schools is one of 16 clearinghouses in the nationwide Education Resources Information Center system. A computer-searchable database, ERIC makes research-based articles and resources available to all. AEL's Clearinghouse produces publications and places into the ERIC system works on rural education, American Indians and Alaska natives, Mexican Americans, migrants, and outdoor education.

Region IV Comprehensive Assistance Center

AEL operates one of 15 new Regional Comprehensive Assistance Centers authorized by Title XIII of the Elementary and Secondary Education Act. The centers consolidate the services of 48 efforts serving individual categorical programs. Six states comprise the Region served by AEL: Kentucky, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Regional Technology Consortium

Under its Regional Technology Consortium, AEL works with educators and others to integrate technology into K-12 classrooms, library media centers, and other educational settings.

Contracts with Other Agencies

AEL makes its expertise available to education agencies across the Region through contracts to perform specific R&D services. These services range from assisting local school districts with reform efforts to conducting third-party evaluations of education programs.

Additional Information

Write, phone, or e-mail for more information. Many of AEL's resources and services are free.

Variety of Political Forces Affect Nature of Superintendent's Role

Much has been written about the public school superintendency, but little consensus exits about the specific nature of the role. In a recent addition to AEL's Occasional Paper Series, authors Aimee Holey of Marshall University (WV) and Leslie Anton Clifton of Cabrini College (PA) provide a brief history and demographic profile of the superintendency. They also look at the contemporary superintendent and requirements for professional preparation.

The authors contend that researchers do not agree about the skills required for effective performance of the role. Indeed, some commentators suggest that the role performance of superintendents depends on the career orientation or types of communities in which superintendents find themselves.

Superintendents' perceptions of the role vary considerably, as well. Some view management skills as most important, others give priority to instructional leadership functions. No matter what else they think superintendents out to do, however, most local board members recognize the importance of superintendents' communication and human relations skills. Empirical studies of superintendents' use of time also suggest these skills are important.

Considering the contradictory evidence about the nature of the superintendency and its role functions, few agree about the best way to prepare individuals for the position. Formal preparation programs, therefore, vary substantially, Theory-based programs have become less prevalent and, increasingly, preparation programs tend to focus on the practical problems of superintendents and the skills needed to solve such problems. Nevertheless, many different approaches to the preparation of superintendents can be found, with no approach demonstrating clear superiority.

To order a copy of *The Public School Superintendency: A Comprehensive Profile*, see the AEL Order Form.

Inclusion of Special-Needs Students in Regular Education Classrooms

Dealing with the inclusion issue in your school or district? AEL offers several products that may be of help to you—an audiotape, a publication from a study group of regular and special education teachers, a theme issue of *The Link*, and more. See the AEL Order Form for product descriptions and prices.

ANNOUNCING—
Interdisciplinary Teamed Instruction: Institutes for School Teams

Interdisciplinary Teamed Instruction is a research-based strategy for curriculum integration that focuses on dissolving boundaries between disciplines of knowledge, between students and teachers, and between school and community.

AEL is offering weeklong institutes designed for administrator-teacher teams from middle and secondary schools, who build team skills as they develop an integrated unit or course. Three or more teachers and at least one administrator make up a team from each participating school. District administrators are also encouraged to attend.

Participating teams:
- examine topics related to interdisciplinary teaching;
- prepare for block scheduling;
- build support networks with other schools;
- translate theory into practical ideas; and
- learn with knowledgeable, experienced facilitators.

Institute facilitators are Rebecca Burns of AEL and Barbara Fleming and Douglas Fleming of School Strategies & Options in Lunenburg, MA. Burns is author of *Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools*. She is also an experienced facilitator of professional development for curriculum restructuring. The Flemings are well known for their work with schools on strategic planning, team building, and effective leadership.

For more information about attending or sponsoring an Institute, call Rebecca Burns at AEL or e-mail burnsb@ael.org.

FOCUS ON INSTRUCTION

Featuring articles from teachers in the four AEL states—this issue, Kentucky

A "Standard" Classroom

by Diane Johnson, Lewis County High School, Vanceburg, KY

The changes in my classroom began prior to the standards movement; they began with the book, *Science for All Americans* (1990). Although I had always been a proponent of increasing science requirements for all students and the necessity of a science background for every student, I did not really understand the ramifications of translating that into classroom practice. I was approaching science as preparation for college classes, not as preparation for life. It was the title that made me stop, literally in my tracks, and take stock of what the science classroom must be. The book precipitated a major shift in how I even thought about "school science." The changes that occurred in Room 52 were not like the gradual evolution to the fittest, but more like the violent upheaval of shifting crustal plates registering 9 on the Richter Scale—over in seconds, but leaving a permanent impact.

Philosophical shifts. Sometimes it takes an earth-shattering revelation to penetrate years of I'm-doing-what-I-think-I'm-supposed-to-be-doing. Some of my students were prepared for school; the rest were prepared for little of what they might encounter out in that vague, formless place we call the "real world." I don't teach for school anymore. I teach for life. Of all the changes that have found their way to the surface, the change in philosophy has been the foundation on which I've built my classroom practices.

Pedagogical shifts. Now comes the fun part. Once I knew what needed to happen, I began to repair the shattered landscape of my classroom. Out went "bell-to-bell" lectures, standard cookbook labs, textbooks, and emphasis on "the facts." In came 15-minute mini-lessons on "big ideas," inquiry labs, original research projects, community-based problems, deliberate concept development, and text materials from every imaginable source—enhanced by technology.

Spurring me on were changes in assessment practices. As Martin Luther King, Jr., might have said, "I was free at last!" Students could show me what they knew, and they could do so in so many more ways than "multiple guess" items and answers (devoid of meaning) to essay questions. My assessment of students has become truly ongoing; my planning, activity selection, approach, etc., are dictated from the varied feedback I receive from my students through their questions, learning log responses, answers to activities, conversations with classmates, and the like. "Formal" assessment or "the test" may take numerous forms, depending upon my bottom-line goals for a particular unit or subunit. It may be a presentation, letter, article, lab, performance event, open-response questions, model, multiple choice items, or lab report. The scary thing is now I really know how little they know or understand, but at least I have some clue about what kinds of classroom opportunities I need to provide.

Curricular shifts. For the 16 years that I have been teaching in my district, we have done very little curricular work, especially in science. About eight years ago we "rewrote" our high school science curriculum by copying the chapters we were going to teach from the textbook, typing the text objectives, placing the product in a binder, and promptly forgetting it. Now, as science educators, we have some sense about what students need to know and do from the National Science Education Standards (NSES).

This past summer the science teachers in my district rewrote our curriculum (with no textbooks in sight), using the standards as our guide. When we finished, we jokingly said that now we at least knew the "minimum" our students should know and had some idea of what "common" experiences ***all*** our students needed—not just the college-bound. It was comforting to know that a diverse group of scientists and science educators had made the tough decisions about what the essence of school science should be, because on a day-to-day basis of classroom teaching, too often problems like keeping a sophomore from sticking gum on the high-powered lens overshadow reflective consideration of the curriculum.

Back-to-basics shift. The biggest change in my classroom promoted by the NSES is a shift back to the basics. For too long, textbook-driven science has knocked students senseless with an overkill of facts. Now I am justified in nurturing the most basic science sense of all, and that's the sense of wonder. As Einstein

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Use this form to order materials from AEL.

Please check (✓) your selections, and complete the shipping information at the bottom of page 3. **Be sure to include payment for priced items.**

The Link Vol. 15, No. 2 • Summer 1996

(fold here)

From: (please print legibly)
Name: ______________________________
Title: ______________________________
Organization: ______________________________
Address: ______________________________
____

Postage Required

☐ Change of address; please correct your records. ☐ I am not on your mailing list; please add my name.

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL (free unless priced)

AEL Information

___AEL Information Packet

___AEL Products & Publications Catalog

Other Resources

___*Family Connections 1 and 2.* Pricing information and free sample issue. (See story on page 7.)

___*The Public School Superintendency: A Comprehensive Profile.* Occasional Paper 37. (See story on page 3.) $7; 60 pp.

___*Making Real Change Happen—A Potpourri of Proven Practices.* Conference notebook, $25 (See story on page 8.)

Audiotapes of conference sessions, $8 each:

- ___ A+chieving Excellence: An Educational Decision-Making and Management System
- ___ Creating New Visions for Schools
- ___ Developing and Evaluating Culturally Sensitive Educational Services and Products in a Multicultural World
- ___ Effective Questioning Techniques for the Reflective Classroom
- ___ Interdisciplinary Teamed Instruction (ITI)
- ___ Leadership for Change
- ___ Leadership for Collaboration
- ___ Onward to Excellence: Making Schools More Effective
- ___ Pathways to School Improvement
- ___ Peer-Assisted Leadership (PAL)
- ___ Strategic Teaching/Reading Project
- ___ Urban Learner Framework

___*Dissolving the Boundaries: Planning for curriculum integration in middle and secondary schools* (1995) Rebecca Burns

This publication helps secondary school faculties prepare for curriculum integration through a four-step process: (1) exploring the promises and problems of curriculum integration; (2) identifying boundaries, proposing solutions, and recognizing support for integration within schools and communities; (3) reaching consensus; and (4) identifying and attaining supports and resources needed to design and implement an integrated curriculum. The facilitator's guide provides step-by-step directions for activities, transparency masters, and participant handouts for use in a professional development setting. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10; 83 pp.

___*Increasing student access to mathematics and science: A guide for classroom equity projects* (1995)

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. Limited instructional materials, equipment, and/or human resources may prevent classroom projects that address the needs of underserved students. The guide provides a description of projects, tips from teachers, and information on funding sources and proposal writing. $5; 44 pp.

___*Systemic reform in mathematics and science: A workshop for schools and communities* (1995)

Educators and community members experience learning as it should occur. Information and hands-on activities increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and role of partnerships in reform. Step-by-step guide and videotape highlight legislation and trends. $100 (without training). For assistance with training, contact the Eisenhower Regional Math/Science Consortium at AEL.

___*Interdisciplinary units with alternative assessments: A teacher-developed compendium* (1995)

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of two to five teachers from six Virginia schools received training, developed the units and assessments, and field tested them with their students. Over several months, they shared and revised their work and reflected on teacher change. $12; 141 pp.

Inclusion Resources

___*The Link*, Spring-Summer 1995; Inclusion: A Responsible Approach

This 28-page theme issue on inclusion contains research summaries, information about legal issues, success stories, a glossary, and position statements of several national organizations.

___Inclusion: Information Search Package (1995)

This search package contains articles from journals and periodicals, research reports, position statements, an ERIC digest, minibibliography, product announcements, abstracts, and searches of the ERIC database. $18; 219 pp.

___*Inclusion of Special Needs Students: Lessons from Experience* (1996)

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp. VEA members may obtain from VEA.

___*Teacher Perceptions of and Strategies for Inclusion: A Regional Summary of Focus Group Interview Findings* (1996)

In 16 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. The most frequently mentioned concerns and recommendations are included in this resource, along with descriptions of more than 100 effective strategies that were developed, tested, and contributed by these experienced practitioners. $15; 240 pp.

State summaries of interview findings are also available at no additional cost (one state summary per purchase): *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings from*

___Kentucky ___Tennessee
___Virginia ___West Virginia

___*Voices from the Field: Secondary School Inclusion in the AEL Region*

State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. AEL staff conducted interviews with principals and special educators at these schools concerning several issues: courses special-needs students are taking; schedules of students and special educators; collaboration of special and regular educators; and any existing arrangements for joint planning time, training, and other support services. Audiotape. $10

volume 1 • number 2
May 1996

R&D watch

a review of education research and development findings

Contents:

Trends — page 2

Charter Schools: Past, Present, and Future

Redefining Education Governance: The Charter School Concept — page 3
Charter Schools: Early Learnings (Insights on Education Policy and Practice, No. 5) — page 3
Strengthen School-Based Management by Chartering All Schools — page 4

Reading and Literacy: Views from the Classroom

A Survey of Instructional Practices of Primary Teachers Nominated as Effective in Promoting Literacy — page 4
Middle- and High-School Students' Perceptions of How They Experience Text-Based Discussions: A Multicase Study — page 5

Parent and Community Involvement: The Rewards of Reaching Out to Students

Family Involvement: Strategies for Comprehensive Alcohol, Tobacco, and Other Drug Use Prevention Programs — page 5
Making a Difference: An Impact Study of Big Brothers/Big Sisters — page 6
Hand in Hand: How Nine Urban Schools Work with Families and Community Services — page 6

Promising Practices: Online Resources That Work

Promising Practices in Mathematics and Science Education — 1995 — page 7
An Introduction to Online Resources for ATOD Prevention Specialists — page 7

Standards and Assessment: The Road to Standards-Based Reform

Issues in Brief: The Fall and Rise of Standards-Based Education — page 8
Policy Briefs: Skills for Tomorrow's Workforce — page 8
Also: *Cognitive Analysis of a Science Performance Assessment* — page 9
Presentation Digest: Designing Performance-Based Assessment Using Dimensions of Learning — page 9

School Culture: Investigating the Role of Traditions

Transforming School Culture: Stories, Symbols, Values, and the Leader's Role — page 10
Success in School: The Journey of Two Chinese-American Families — page 10
R&D Resources — page 11

R&D Watch
is provided by
AEL
celebrating
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Appalachia Educational
Laboratory

BEST COPY AVAILABLE

A Standard Way of Thinking

When governors and top business executives rendezvoused in March at their education summit, they put their voices behind what they consider to be a crucial reform for American education — creating high standards for student achievement.

For many professionals deep in the education trenches, the idea of drafting standards that ensure that all students learn "the basics" and achieve certain levels of literacy in various disciplines is nothing new. But *how* to do it, that's the tricky part. There is no easy answer; just one look at some past efforts will tell you that.

A case in point: The recently unveiled English-language arts standards were largely greeted with disappointment. Now, some argue that stringent criticisms ultimately lead to better standards. Such may be the case in history, where the controversial standards released in 1994 have been revised. Others interpret the criticisms as a signal that the notion of one set of standards accepted across-the-board is naive in today's world. With information growing and changing at an insurmountable pace and an emerging global economy constantly redefining our workforce needs, can the possibility of total agreement on essential knowledge and skills still exist? And would such agreement subsequently stymie students already capable of exceeding the essentials?

Of course, there have been successes in setting standards in some disciplines, most notably in mathematics. But even when educators reach some consensus on what basic skills and knowledge students should have, there are other elements still up for debate.

No discussion of standards is complete without talking about assessment. As we race to set standards that will determine students' success or failure in school, the real challenge is to devise an accurate and successful measure of students' performances against these standards. The reason for developing standards is not just to decide what children should learn, but to ensure that they learn it.

Most educators think that "teaching to the test" is wrong, but if the assessment is a good one — if we can say with confidence that it truly reflects what we want students to know and be able to do — then is there really something wrong with "teaching to the test?" Would it not, in fact, guarantee that teachers are teaching students *exactly* what the students should be learning? This is the real revolution being created by the standards way of thinking — a revolution in our way of thinking about assessment and public accountability.

Other issues we need to consider:

- Should standards reflect the basic knowledge and skills necessary for an individual to become literate in a subject area, or should they aim more towards some level of expertise in that subject?
- What kind of standards should exist? Should they be created according to each discipline? And if so, where do skills that cross over into all disciplines — such as thinking and reasoning skills — fit in? What about standards for vocational curricula? Is there a way to integrate them with standards for academic curricula?
- What is the best way to implement standards? Should they reflect the "what" or the "how to"? Or should they focus on how teachers teach students — and if so, how can that help measure *student* achievement?
- Will standards become the sole measure of student achievement? Do all students have to meet all standards; and if not, who or what will assess whether students have "met enough" to be promoted to the next grade?

<continued on page 12>

Charter Schools Offer First Real Model of Local, Autonomous Control

Charter schools are the first "real model" for public schools that reflects complementary trends in the political and education arenas toward decentralization and local control.

In the first of a series of occasional papers focusing on charter schools, the Southwest Educational Development Laboratory examines the history of the charter school concept. In particular, the report looks at the environment that gave birth to it and the reasons this reform idea has caught on so well in such a short time. By 1995, only four years after Minnesota enacted the first charter school legislation, at least 19 states had passed initiatives to create charter schools.

Researcher Kathleen McGree posits charter schools as the somewhat inevitable outcome of two distinct education reform "waves" of the last decade: one fashioned as state-mandated regulations and standards to foster better quality and accountability; the other calling for "restructuring" schools for more flexibility and autonomy as a way to respond to increasingly diverse student demands.

"Charter schools represent a culmination and extension of these two waves of reform by emphasizing accountability for results, school-based change, teacher professionalism, and choice," McGree writes. Meanwhile, because charter schools are exempt from most state and local regulations, they can potentially overcome conflicting intentions and policies that have hampered past reforms. This allows charter school organizers and administrators to base decisions solely on what's best for their particular school.

McGree also credits the bipartisan practicality of the idea, saying that "[charter schools] have emerged as an attractive alternative to doing nothing to improve the public schools or abandoning them altogether." Moving from theory into practice, however, is another story, notes McGree. When crafting charter school legislation, policymakers should understand the context of previous school reforms while supporting "a fundamental departure from the past."

To Order

Redefining Education Governance: The Charter School Concept is available from the Southwest Educational Development Laboratory, 211 East Seventh St., Austin, TX 78701 (cite order no. SD-596-RD, 13 pages, $4.50 plus $2.50 shipping charge, prepaid).

States Looking into Charter Schools Can Learn from Others' Early Attempts

Drawing on research findings from charter school experiments in states such as California, Colorado, and Minnesota, the Southwest Educational Development Laboratory (SEDL) has condensed some of the early lessons — both successes and failures — into a policy brief that highlights the implications of these findings for future policy decisions.

Charter schools are looking like the upstart reform idea of the decade. Representing to some the promise of cost-free innovation and public-school choice, they are based on a "contract" between a group of school organizers (parents, teachers, or others) and a sponsor (usually a local or state board of education). Organizers guarantee certain academic outcomes in exchange for legal and financial autonomy from local and state education codes.

While the concept is still in its infancy, enough information exists to begin to examine the planning and implementation issues that many of these states have faced in putting charter schools into practice. Author Kathleen McGree focuses on crucial areas such as accountability, teacher roles and responsibilities, funding and assistance, and systemwide improvement. Also discussed:

- *Autonomy.* Variations in legislation language have made some charter schools autonomous, but others have little more independence than other public schools.
- *Equity and Choice.* Friends and foes of charter schools argue whether charter schools increase options for at-risk students or seek to appeal only to those who are academically and economically advantaged.

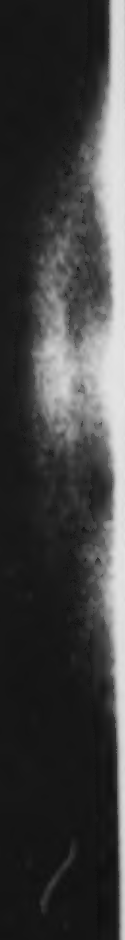
McGree compares existing charter school legislation in four states within SEDL's region — Arkansas, Texas, New Mexico, and Louisiana — based on these areas already earmarked as potential trouble spots. Also, the brief suggests questions for policymakers to consider as they draft future plans.

To Order

Charter Schools: Early Learnings (Insights on Education Policy and Practice, No. 5) is available from Southwest Educational Development Laboratory, 211 E. Seventh St., Austin, TX 78701 (cite order no. SD-596-RD, 12 pages, $4 plus $2.50 shipping, prepaid).

charter schools

The phrase "charter schools" elicits both promise and controversy. Information on early attempts are now trickling in. But even as we glance back for lessons learned, pioneers are looking to the future and to the next level of reform through charter schools.



charter schools

Making All Schools Charter Schools Is More Likely to Change Systems

Ray Budde, the originator of the charter schools concept, now suggests expanding charter schools districtwide — that is, making all schools charter schools.

Charter schools agree to be accountable to the state for learning and other outcomes in return for permission to manage and govern themselves, exempt from district rules. Why charter all schools districtwide?

"School-based management cannot be 'installed' or strengthened by focusing on changing the organization of schools alone. Both schools and the school 'systems' (districts) in which they are embedded have to undergo substantial structural change," Budde explains. Chartering all schools in a district would require schools and districts to reorganize and involve local school boards — rather than distant state boards of education — in the change process.

In a book by The Regional Laboratory for Educational Improvement of the Northeast and Islands, Budde describes how all schools in a district can be chartered over a three-year period. At the school level, he suggests that the principal, a steering committee, and an advisory committee lead school staff in considering how they want to reorganize their school and what the new goals of the school should be. Then they could effectively plan reorganization. Meanwhile, school staff, parents, and district-level staff might focus on reorganization of the school board and central office; districtwide governance and personnel issues; instruction; student participation, assessment, and services; and more.

Included in the book are over 20 policies that school boards can adopt to redesign the structure of their school districts, including a one-time policy that guarantees job security for teachers while they restructure schools. "A heavy threat of dismissal hanging over the staff would pretty much doom any genuine efforts for reform," asserts Budde.

To Order

Strengthen School-Based Management by Chartering All Schools is available from The Regional Laboratory for Educational Improvement of the Northeast and Islands, Publications Department, 300 Brickstone Sq., Suite 950, Andover, MA 01810 (cite order no. L-9422, 125 pages, $24.95 plus $2.50 shipping, prepaid).

reading and literacy

When it comes to teaching reading, strategies and theories abound. But if there is one tried-and-true research method for determining what works best, it's talking to those involved. Often, the experiences and observations of students and teachers provide the most insight.

Excellent Teachers Blend Approaches When Teaching Students to Read

A long-standing controversy in reading research is whether teachers should use whole language or phonics instruction when teaching students to read. A survey of top-notch elementary school teachers indicates that most actually blend both approaches.

Advocates of whole language instruction suggest that students learn to read by reading library books rather than traditional "basal" reading instruction textbooks. Those committed to phonics instruction promote a skills approach, emphasizing strategies such as decoding and sounding out words.

Fifty-four percent of the teachers surveyed considered themselves whole language teachers, while another 43 percent claimed they were somewhat whole language. Teachers said that 73 percent of the reading material in their classrooms was "outstanding children's literature," find researchers Michael Pressley, Joan Rankin, and Linda Yokoi of the National Reading Research Center.

Despite support for the whole language approach, 95 percent of the teachers said that they explicitly taught phonics, although 90 percent reported doing so in the context of "real reading." Forty-three percent of the teachers reported teaching phonics with traditional workbooks and skills sheets.

"In short, there was much more commitment to teaching phonics in ways that were consistent with ongoing reading and writing and students' needs during reading and writing than to teaching phonics in isolation," conclude the researchers.

The researchers also note other effective strategies used by these outstanding elementary school teachers, such as using a variety of reading activities and avoiding ability grouping.

To Order

A Survey of Instructional Practices of Primary Teachers Nominated as Effective in Promoting Literacy is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite report no. 41, 27 pages, $4 prepaid; make checks payable to NRRC/UGARF).

reading and literacy

Small Groups, Interesting Topics Make the Best Discussions, Students Say

Middle- and high-school students are keenly aware of what makes for good discussion in English and social studies classes. Class discussion engages students in curricular material and develops their deeper understanding of it. But to evoke such outcomes, discussions have to encourage students' participation and enthusiasm.

Students of varying cultures and ethnicities, interviewed by researchers from the National Reading Research Center, maintain that they prefer small group discussions to whole class ones. Small group discussions allow students more opportunities to talk and help students feel comfortable with each other, allowing them to take risks and share their thoughts.

Students indicate that good discussions take place when everyone contributes, that is, when all students have read the assignment and come prepared to discuss it. They must be responsible for listening to and questioning each other and keeping a focus on the topic. Students also note the fine line between respectfully discussing ideas that conflict and arguing.

Discussion topics should be interesting. Many students want freedom to explore aspects of reading they find interesting. "Their opinions about suitable discussion topics suggest the need for students to have a voice in selecting and defining them," maintain researchers Donna E. Alvermann, Dera Weaver, Kathleen A. Hinchman, David W. Moore, Stephen F. Phelps, Esther C. Thrash, and Patricia Zalewski.

Despite wanting input into topic selection, many students still look to teachers to pose provocative discussion questions, the researchers note.

To Order

Middle- and High-School Students' Perceptions of How They Experience Text-Based Discussions: A Multicase Study is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite report no. 36, 39 pages, $4 prepaid; make checks payable to NRRC/UGARF).

---

parent and community involvement

Pressures on students today are enormous and often far different than those of generations who went before. Communities are looking to schools to take care of the "whole child," not just the child's mind. And schools, in turn, are asking parents, families, and communities to join in — to form partnerships of support that reach out to all students so that they can succeed.

Programs Foster Family Involvement While Reducing Student Drug Use

A guidebook published by Northwest Regional Educational Laboratory describes programs that both foster family involvement and reduce student alcohol, tobacco, and other drug (ATOD) use.

In it, researcher Ann S. Bickel contends that when schools work with families, students do better in school, thereby reducing their risk of taking drugs. Families also play a crucial role in helping children overcome existing drug problems.

She describes three ways that families can become involved in programs. First, families can support schools by assisting student learning and improving the health of the school community. Parents can come together around a single issue, such as restricting zoning of alcohol sales outlets or patrolling school campuses to reduce violence, or they can sponsor events such as ATOD-free graduation parties.

Second, schools can support families by offering services such as home visits. "Prevention visits, conducted for all students before they enroll or enter a new school, build trust and rapport between the school and the family," explains Bickel. "Intervention visits, conducted to solve problems, signify to the family that the school is interested in helping them."

Third, families and schools can collaborate to foster common goals. They may jointly develop and offer programs and activities, such as parent education classes and food and clothing drives.

The guidebook describes common barriers to family involvement, how to overcome these barriers, and characteristics of effective outreach and program planning. Also included are sample activities used to conduct needs assessments and to plan effective programs.

To Order

Family Involvement: Strategies for Comprehensive Alcohol, Tobacco, and Other Drug Use Prevention Programs is available from the Northwest Regional Educational Laboratory, Office of Marketing, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NL-2-596-RD, 86 pages, $13.35 prepaid).

BEST COPY AVAILA

Well-known Mentor Program Improves Achievement Among Adolescents

In recent years, mentor programs — both those affiliated with and independent of schools — have proliferated, in part due to the popular assumption that the programs foster positive outcomes, namely, school achievement. An evaluation of the Big Brother/Big Sister program backs up the claim that it, and similar mentoring programs, can indeed advance positive effects.

Adolescents who had a "Big Brother" or a "Big Sister" and met with him or her regularly enjoyed school and did better academically than did their peers who were not in these programs. They were also less likely to start using drugs and alcohol, according to results of the evaluation, conducted and published by Public/Private Ventures.

Researchers Joseph P. Tierney and Jean Baldwin Grossman, with Nancy L. Resch, find that "Little Brothers" and "Little Sisters" — generally between the ages of 10 and 14 — skipped half as many school days and felt more confident in their ability to complete their schoolwork than did their peers.

Little Brothers and Little Sisters also averaged a slightly higher grade point average than their peers: 2.71 versus 2.63. The effect on minority girls was even greater. Minority Little Sisters had a 2.83 GPA as compared to 2.62 for other minority girls. "Improvement in grade point average among Little Brothers and Little Sisters, while small in percentage terms, is still very encouraging, since nonacademic interventions are rarely capable of producing effects in grade performance," the researchers point out.

The researchers also describe nonacademic program effects that impact school performance. Little Brothers and Sisters were 46 percent less likely to start using drugs and 27 percent less likely to start drinking than their peers. Little Brothers and Little Sisters were also closer with their parents and less likely to lie to them.

To Order

Making a Difference: An Impact Study of Big Brothers/Big Sisters is available from the Public/Private Ventures, Communications Department, One Commerce Square, 2005 Market St., Suite 900, Philadelphia, PA 19103 (87 pages, $7.50 prepaid).

Urban School Pursues Learning by Casting Eye on Family Needs

Educators know that, in order to help students learn, they need to address nonacademic issues, such as poor nutrition, child abuse, and family instability.

How nine urban schools are addressing these and other social issues is the subject of a review by The Regional Laboratory for Educational Improvement of the Northeast and Islands.

Escuela Elemental de la Universidad de Puerto Rico in Rio Piedras, Puerto Rico, is a case in point. Staff recount how they shifted their focus from being "academically centered" to being "centered on the whole child." "This meant that we couldn't close our eyes to the problems and needs the child's family was going through which affected his/her behavior and performance in school," writes principal Aura Ramirez.

Ramirez relates that educators worked together with parents to identify their needs, the needs of their children, and the best resources to serve them. These collaborations showed parents that teachers cared about their perceptions and opinions which, in turn, helped parents learn to trust the school.

Once trust was established, parents could discuss family problems, and teachers could make referrals to appropriate agencies and offer other support. One outgrowth is that the school is now offering free breakfasts to all children and physical, auditory, visual, and dental examinations to poor children. And it's a two-way street. "Parents are feeling that the school cares about them, so they in turn seem to care more about the school," says Ramirez, illustrating her point with trees parents helped teachers plant in the school yard.

To Order

Hand in Hand: How Nine Urban Schools Work with Families and Community Services is available from The Regional Laboratory for Educational Improvement of the Northeast and Islands, 300 Brickstone Sq., Suite 950, Andover, MA 01810 (cite order no. L2005-02, 56 pages, $6 plus $2.50 shipping and handling, prepaid).

promising practices

When something works, you want to stick with it. And you want to share it with others who can benefit. But to do either requires identifying what works and why.

Research can pinpoint the promising elements of successful education programs and practices. Doing so makes that information more accessible and adaptable so that it can help all students.

Resource Book Full of Promising Practices for Math and Science Education

A new resource book featuring 117 promising practices in math and science gives teachers at all levels ideas for developing instructional units, classroom activities, and projects. It also provides administrators with concrete examples to inform school board members about new ways to teach math and science.

Sponsored by the U.S. Department of Education, the resource book uses research data collected from the Eisenhower Consortia at the Regional Educational Laboratories and the Eisenhower National Clearinghouse.

Each entry includes the title and general description of the program; its primary focus; the types of students and grade levels it targets; instructional materials, methods, and assessments that are compatible with it; intended outcomes; evidence of the program's effectiveness; staffing, funding, and other resources needed for implementing it; a list of schools that have implemented the program; and a contact person for further information. Some promising practices described in the book include:

- *Parent Involvement Through Math, Science, and Beyond.* This program is a math and science evening program for elementary school students and their parents, emphasizing hands-on learning experiences that parents extend with follow-up activities at home. Materials are available in English and Spanish.
- *Macintosh-Using Science Teams.* This summer program groups urban minority seventh through ninth graders into research teams to investigate humans' impact on the marine environment. Students use professional instruments to collect information about marine ecosystems, and then they analyze and process the data in computer labs.

To Order

Promising Practices in Mathematics and Science Education — 1995 (161 pages, free) is available online at the Eisenhower National Clearinghouse's Web site: http://www.enc.org; or at Research for Better Schools' Web site: http://www.rbs.org.

Guide Helps Prevention Specialists Access Resources on the Internet

Whether computer-shy or Internet-friendly, alcohol, tobacco, and other drug prevention specialists can access a wealth of up-to-date information from the online "information superhighway" with the help of a new guide by the Northwest Regional Educational Laboratory.

For those new to computers, author Randy Collver discusses a range of issues, from basic equipment needs and troubleshooting guidelines to online services and strategies for searching the Internet. More advanced computer users benefit from a directory of Internet sites that offer drug prevention information.

Helpful books and magazines, listed in the guide's bibliography, describe how to use the Internet, but Collver suggests that the best way is to "log on" and explore. "Expect the unexpected. Be patient, be flexible, and be amused," he advises.

Once on the Internet, prevention specialists who want to access various services will need to learn how to use a "Web browser," Gopher, or other tool appropriate for their particular system, Collver says.

Available at the click of a mouse are numerous resources that provide information on preventing alcohol, tobacco, and other drug use, as well as related information on suicide prevention, eating disorders, coping with grief, anger management, legal issues, and funding sources. For each resource, the guide gives the Internet title, address, description, subject heading, and e-mail contact.

Collver also notes that certain Internet sites serve as "research libraries of cyberspace." They index, abstract, and provide access to bibliographic citations, statistics, and sometimes the full text of journal articles, research reports, dissertations, financial statements, newspapers, and reports from around the world.

To Order

An Introduction to Online Resources for ATOD Prevention Specialists is available from the Northwest Regional Educational Laboratory, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NL-496-RD, 48 pages, $9.60 prepaid).

BEST COPY AV

standards and assessment

Determining what children should learn and ensuring that they learn it are the cornerstones of our education system. Educators still grapple with the age-old question of how to develop an acceptable system of standards. Meanwhile, they are exploring new ways to better assess children's knowledge.

Standards Movement Garners Spotlight in Education Reform Efforts

The growing debate over establishing standards for student achievement may well become one of the defining characteristics of education reform in this decade.

So begins a National Association of State Boards of Education brief written by standards experts Robert J. Marzano and John S. Kendall of the Mid-continent Regional Educational Laboratory. The brief aims to inform school board members at state and local levels about the standards movement in education.

Marzano and Kendall give a brief history of the role of standards in recent education reform, citing the publication of the 1983 report *A Nation At Risk* as a springboard for the modern standards movement. They detail early criticisms of the movement — including burdensome costs, questionable content, and the claim that it promotes "educational apartheid," unfairly affecting those who traditionally don't do well in school. They then examine the "health" of the movement today.

"Even though the standards movement at the national level has bogged down and state and district level efforts to effect such reform have been extremely uneven, standards-based education has a logic that is to us compelling," write the researchers.

In a second section, the researchers tackle the technical side to articulating standards, highlighting four key issues: content versus curriculum standards; types of content standards; content versus performance standards; and establishing levels of standards. And they discuss the fundamental considerations for adapting standards to local needs.

The brief also describes a standards database maintained by McREL that synthesizes information from various standards documents and subject-area materials. It offers a common format for state, district, or local officials attempting to design their own standards based on national documents.

To Order

Issues in Brief: The Fall and Rise of Standards-Based Education is available from the Mid-continent Regional Educational Laboratory, Resource Center, 2550 S. Parker Road, Suite 500, Aurora, CO 80014-1678 (cite order no. ML-596-RD, 24 pages, $9.50 prepaid).

Classifying Standards Clarifies Purpose and Makes Implementation Easier

Educators and businesspeople trying to develop and use a range of multi-purpose standards face perplexing choices. Help can be found in a WestEd policy brief that defines general categories for grouping both academic and industry skill standards. Thinking about standards according to these definitions might clear up some of the confusion and make integrating them easier, suggest researchers Srijati Ananda, Stanley Rabinowitz, Lisa Carlos, and Kyo Yamashiro.

In recent years, reformers have created numerous standards, some that articulate basic academic expectations and some that specify the skills needed to enter certain industries and occupations. Ideally, both kinds of standards should make clear what educators and businesspeople expect youth to know and be able to do.

"Developing a consistent, high-quality format for standards, however, has been hampered by a lack of consensus about what form standards should take, their purpose, and their level of detail," explain the researchers. As a result, both academic and industry skill standards vary greatly in scope, making it difficult to develop and implement them.

Thus, the researchers have delineated three types of standards:

- Core academic standards cover academic subjects such as mathematics, language arts, and science. These are the necessary building blocks for functioning in society as well as for developing life skills.
- Workplace readiness standards focus on skills and qualities that enable workers to adapt to the demands of a job, regardless of the type of job. These include critical-thinking, problem-solving and communication skills, as well as the ability to access and use information and technology.
- Program-specific standards center on the specific knowledge and skills required for a particular career focus. These include standards for skills needed in a particular occupation, occupations within a particular industry, and similar occupations across industries.

To Order

Policy Briefs: Skills for Tomorrow's Workforce is available from WestEd, 730 Harrison St., San Francisco, CA 94107-1242 (cite order no. PO-96-03, 8 pages, $4 prepaid).

Science Assessment Proves Accurate in Measuring Problem-Solving Ability

Here's good news for educators who still question whether performance assessments really measure what they are designed to measure. Researchers from the National Center for Research on Evaluation, Standards, and Student Testing have found that at least one science assessment intended to evaluate students' problem-solving ability is right on target and reliable.

After observing fourth and fifth graders complete the "Mystery Powders" curriculum unit and corresponding performance assessment, researchers Gail P. Baxter, Anastasia D. Elder, and Robert Glaser report that the assessment successfully calls on students to demonstrate their level of problem-solving proficiency.

For this assessment, students had to identify the contents of several bags of "powders" — cornstarch, baking soda, and salt, alone or in combination. To do so, they could touch and taste the powders, examine them under microscope, and add iodine, vinegar, and water to examine chemical reactions. Evidence would confirm the identity of the powders and rule out the presence of others.

The researchers found that higher scores on the assessment corresponded to students who followed more systematic problem-solving methods. Higher-scoring students were able to use general science principles to explain how they identified the powders; understood the reasons for conducting different tests; had an overall plan for how to solve the problem; gathered all the information they could before they drew conclusions; and reexamined their own prior observations of the substances, noting similarities and differences between them.

In contrast, low-scoring students thought they could use one test to identify all the powders; had no set plan for how to identify the powders, relying only on trial-and-error strategies; and tended not to reevaluate their thinking and reasoning throughout.

To Order

Cognitive Analysis of a Science Performance Assessment is available from the National Center for Research on Evaluation, Standards, and Student Testing, Graduate School of Education and Information Studies, University of California, Los Angeles, CA 90095-1522 (cite order no. TR-398, 25 pages, $5 plus $1.50 shipping, prepaid; CA residents add 8.25% tax).

Educators Must Distinguish What Knowledge Is Target of Performance Tasks

Any design of performance assessment tasks should clearly identify the knowledge to be assessed and then be diligent about ensuring that the task assesses the specified knowledge, say Debra Pickering of the Mid-continent Regional Educational Laboratory and Jay McTighe of Maryland Assessment Consortium. In an audiotape produced by the Association for Supervision and Curriculum Development, they recommend that, to design valid performance assessment tasks, a good first step is to specify whether the task is to assess declarative or procedural knowledge.

Procedural knowledge is defined as the skills and processes that students are expected to master. Declarative knowledge refers to the facts, concepts, principles, and generalizations that students need to know and understand. Having determined which kind of knowledge needs to be assessed, the teacher creates a performance task either that requires students to use skills or processes (procedural) or in which students demonstrate understanding (declarative) of facts or concepts.

Examples of each type of task are offered to clarify the distinction. Students in one class use math skills to construct a model of Annapolis, a task focusing on demonstration of procedural knowledge. A task assessing declarative knowledge has students examine treaties between the U.S. and the Lakota tribe to demonstrate understanding of how conflict, power, and cooperation in social, political, and economic spheres influence ownership and use of natural resources.

Failure to understand the difference between assessing these types of knowledge muddies the waters, claim Pickering and McTighe. Unless assessments of declarative knowledge are properly designed to require students to use reasoning skills, students may merely reproduce knowledge or recite information, not demonstrate understanding.

To Order

Presentation Digest: Designing Performance-Based Assessment Using Dimensions of Learning is available from the Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314-1453 (cite stock #295194V84, 90 minutes, $24.95 plus $2.50 handling charge, prepaid).

school culture

In American society, school is much more than an academic institution; it's a tradition. Parents remember their own school experiences. Communities have specific ideas about what schools should be. These notions are as much a part of the learning environment as are books and keyboards. Often, they shape our collective expectations of what children can and should learn.

To Reshape School Culture, First Unriddle It

School culture — that elusive concept that encompasses the norms, values, beliefs, and traditions of a school community — exerts an enormous influence on a school's effectiveness. It affects teachers' attitudes toward their jobs, as well as student motivation and achievement.

But what exactly is school culture? How do faculty and school leaders identify their school culture? These are among the issues covered by the ERIC Clearinghouse on Educational Management in a new guide.

To understand a school's culture, say authors Stephen Stolp and Stuart C. Smith, school staff need to closely examine the "feel" of their school, including the rituals, ceremonies, and other language and symbols that make the school unique. This even includes the prevailing atmosphere of and dialogue heard in the school's hallways.

"Talking with teachers, students, and administrators from other schools or visiting their educational facilities helps put into focus those elements that are unique to the culture of one's own school," as does considering how the school's culture has changed over time, add Stolp and Smith.

Besides paying attention to the more subtle values, beliefs, and underlying assumptions of those connected to the school, it is just as important to identify the values, beliefs, and assumptions that are *not* in place. A mission statement focusing on academic achievement may mean, for instance, that the school pays short shrift to social needs.

Stolp and Smith also discuss how school leaders can transform their culture into one that supports excellence by, for example, developing a vision for the school in conjunction with the entire school staff.

To Order

Transforming School Culture: Stories, Symbols, Values, and the Leader's Role is available from the ERIC Clearinghouse on Educational Management, Publication Sales, 5207 University of Oregon, Eugene, OR 97403-5207 (92 pages, $12.50 plus 10% shipping and handling, $4 minimum, prepaid).

Views About Fostering Kids' School Success Differ Among Immigrant Parents

If the experience of two families is indicative, immigrant parents' support for their children's school experiences differs depending on where the parents themselves were educated — in America or in their homeland.

In a report for the Center on Families, Communities, Schools, and Children's Learning, researchers Sau-Fong Siu and Jay Feldman compare and contrast the views of two Chinese-American families. Mr. and Mrs. Ho, reared and educated in the United States through college, hope that their second-grade daughter Julie's education will qualify her for a professional job when she grows up; but they believe that education is primarily meant to help children mature socially and emotionally. The Hos don't push Julie to get good grades or do her homework because Julie herself wants and tries to do well.

The Lams also value education highly. Recent immigrants educated in China, they view education's primary purpose as providing the means to a good job and a comfortable life. To their second grader Kenneth, Mr. and Mrs. Lam stress hard work, discipline, self-control, and academic competition with other students. They check Kenneth's homework and tutor him every day and only permit Kenneth to participate in extracurricular activities that augment the school's academic program, such as mathematics workshops.

"We are not trying to identify the right way of fostering young children's school success," explain the researchers. "The school's responsibility is to try to understand the diversity that exists even within the same ethnic group of parents."

"Parents' ability to provide support, along with the actual type of support provided, seem to be a function of parental knowledge and experience with American schooling and culture," the researchers conclude.

To Order

Success in School: The Journey of Two Chinese-American Families is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3505 N. Charles St., Baltimore, MD 21218 (cite report no. 31, 23 pages, $6.80 prepaid).

Continuing the Standards Dialogue

Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education

Produced by the Mid-continent Regional Educational Laboratory, this 607-page volume presents standards and benchmarks in 13 disciplines – mathematics, science, history, language arts, geography, arts, civics, economics, health, foreign language, physical education, behavioral studies, and life skills.

With its easy-to-read format, Content Knowledge helps educators develop and implement standards based on national efforts and on the work of experts. It forms the basis of McREL's database of over 200 standards and more than 3000 related benchmarks, provided in one common format. Visit McREL's website at: http://www.mcrel.org/products/. For a hard copy of Content Knowledge, contact Sopris West, (303) 651-2829.

National Health Care Skill Standards

WestEd collaborated with the National Consortium on Health Science and Technology Education and other health care organizations to develop and articulate voluntary skill standards for the health care profession. The project was one of 22 funded by the federal government as part of its education and labor reform efforts.

For ordering information, contact WestEd at (415) 565-3044. Also available at the project's website: http://www.fwl.org/nhcssp/health.htm.

Occupational Standards: International Perspecitves

The Center on Education and Training for Employment examines lessons learned and methods shared among countries interested in improving workforce preparation. Focusing on workplace standards, the publication addresses:

- ways to integrate occupational training with academic instruction, and how that might lend prestige to vocational occupations.
- changing economies and workplaces that demand workers have new skills.
- standards and certification requirements that affect worker flexibility.
- standards' role in increasing productivity and quality.

Contact CETE at (614) 292-4353.

CRESST Line: Special Issue on Standards

This special edition of Center for Research on Evaluation, Standards, and Student Testing's newsletter devotes its pages to implementing standards. Featured are:

- A discussion of performance standards – those that tell us how well students have learned something – and their important role in linking standards and assessments.
- An examination of equity concerns in the implementation of standards.

Available on CRESST's website: http://www.cse.ucla.edu. The website also links to "Developing Educational Standards," a site devoted to standards from which users can access numerous other sites.

Pacific Standards for Excellence Series

Framed by the vision, "All Pacific children will be scientifically and mathematically literate: knowledgeable, capable, and caring."

Developed by the Pacific Region Educational Laboratory, the series acknowledges the cultural and environmental uniqueness of the region while challenging both students and teachers to excel. Standards are currently available for:

- Science
- Teaching, Assessment, and Professional Development
- Mathematics

Contact PREL at (808) 533-6000; email: askmathsci@prel.hawaii.edu.

r&d resources

The regional educational laboratories (RELs) and national centers for education research are contributing a wealth of information to the standards dialogue.

Included here are just some examples of their investigations into issues surrounding standards and assessment, as well as individual REL efforts to help educators establish comprehensive sets of standards, both academic and vocational.

BEST COPY AV

R&D Watch
A review of education research and development findings.

volume 1 • number 2
May 1996

Jessica N. Kennedy
editor

Diane S. Michel
contributing writer

R&D Watch is published by your regional educational laboratory in cooperation with the Council for Educational Development and Research.

Dena G. Stoner,
executive director

Funding for the R&D reported in this publication is provided, in part, by the U.S. Congress and administered by the Office of Educational Research and Improvement, U.S. Department of Education.

A Standard Way of Thinking

<continued from page 2>

- Who should set standards? National standards are often perceived as a threat to local autonomy, but allowing states or communities to set their own standards does little to actually "standardize" knowledge and may lead us right back into the question of what defines basic knowledge and skills.

Can these disparate concerns be somehow reconciled? Some parts of the movement toward standards-based education unavoidably rely on political decisions about whom the American people will trust to set and measure the standards for children's achievement. But for other parts, we can rely on education R&D to sort through this quandary. Past lessons, knowledge about the way children best learn, and an awareness that society no longer has a simple, singular definition of a "literate" adult have guided researchers in their examinations of standards-based education.

Among the publications highlighted in this issue of *R&D Watch* is an overview of the emergence of the standards movement, with a look towards its future. Another examines the task of integrating workplace and academic standards. Two other publications feature testimonials and suggestions about performance assessments that can work. For this issue's *R&D Resources* (page 11), we focus on efforts by the regional educational laboratories and other research centers to address elements of the debate as the trend toward standards-based education marches on.

R&D Watch provides this research to keep educators informed about the standards discussion. The public expects all professionals — including educators — to participate in setting and enforcing the level of high standards that ultimately define their profession. Will the public trust educators to engage them in the standards dialogue, or will they look to someone else?

Look for your next issue of
R&D Watch
when school resumes
in the fall.

CEDaR
2000 L Street, NW • Suite 601
Washington, DC 20036

Non Profit Org.
U.S. POSTAGE
PAID
CEDaR

BEST COPY AVAILABLE

Resources from the ERIC Clearinghouse on Rural Education and Small Schools

American Indian Education

___ *Joining the Circle: A Practition-ers' Guide to Responsive Education for Native Students.* Agnes Grant & LaVina Gillespie. 1993. 62 pp. $10.00

___ *Native Education Directory: Organizations and Resources for Educators of Native Peoples of the United States and Territories.* ERIC/CRESS and Native Education Initiative of the Regional Educational Laboratories. 1993. 65 pp. ~~$12.00~~ now $6.00.

Mexican American Education

___ *Doing Our Homework: How Schools Can Engage Hispanic Communities.* Andrea B. Bermúdez. 1994. 92 pp. $12.00

___ *Thorough and Fair: Creating Routes to Success for Mexican-American Students.* Alicia Sosa. 1993. 50 pp. $10.00

Migrant Education

___ *Educating Undocumented Children: A Review of Practices and Policies.* John Willshire Carerra. 1989. 42 pp. ~~$7.50~~ now $3.75

___ *Children of LaFrontera: Binational Efforts to Serve Mexican Migrants and Immigrant Students.* Judith LeBlanc Flores. 1996. 352 pp. $18.00

Outdoor Education

___ *In Our Own Words: Community Story Traditions to Prevent and Heal Substance Abuse.* Michael Tierney. 1992. 65 pp. ~~$10.00~~ now $5.00

___ *Lasting Lessons: A Teacher's Guide to Reflecting on Experience.* Clifford E. Knapp. 1992. 118 pp. $12.00

___ *Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning.* Clifford E. Knapp. 1995. 120 pp. $12.00

Rural Education/Small Schools

___ *The Distance Education Handbook: An Administrator's Guide for Rural and Remote Schools.* Bruce Barker. 1992. 65 pp. ~~$10.00~~ now $5.00

___ *Local Schools of Thought: A Search for Purpose in Rural Education.* Clark D. Webb & Larry K. Shumway with R. Wayne Shute. 1996. 80pp. $12.00

___ *Managing Smallness: Promising Fiscal Practices for Rural School District Administrators.* Deborah Inman Freitas. 1992. 74 pp. ~~$10.00~~ now $5.00

___ *Systemic Reform in Six Rural Districts: A Case Study of First Reactions to the Kentucky Education Reform Act of 1990.* Pamelia Coe & Patricia Kannapel. 1991. 69 pp. $10.50

Other

___ *A Parent's Guide to the ERIC Database: Where to Turn With Your Questions About Schooling* (Revised Edition). Craig Howley, Phyllis Stowers & Patricia Cahape. 1992. 81 pp. ~~$10.00~~ now $5.00

___ *Overcoming Risk: An Annotated Bibliography of Publications Developed by ERIC Clearinghouses.* Wendy Schwartz & Craig Howley. 1991. 94 pp. $10.50

4/96

Briefs for Parents (free)

These typeset articles are **ready to pasteup in your newsletter, newspaper, or periodical.** Clearly and briefly, each article addresses an education topic of concern to parents. They are available **free** (limit one copy of each set per order). To order, check (✓) the set(s) you wish to receive.

1995 Briefs for Latino Parents:

___ Six articles in Spanish ___ English translation

___ 1996 Briefs for English-Speaking Parents

Shipping Information

All prices include shipping and handling.

___ I have enclosed a check or money order (drawn on a U.S. bank) made payable to AEL in the amount of $__________ (U.S.) for the items selected.

___ I have enclosed an institutional purchase order (No. ________________) in the amount of $__________ (U.S.) for the items selected, in lieu of prepayment.

Name ______________________________

Title ______________________________

Organization ______________________________

Address ______________________________

____

Telephone ______________________________

(in case we have a question about your order)

ERIC/CRESS Digests—free; check (✓) the Digests you want and fill out the form on other side.

AMERICAN INDIAN/ALASKA NATIVE EDUCATION

— *American Indians and Alaska Natives in Higher Education: Research on Participation and Graduation.* D. M. Pavel (1992), EDO-RC-92-2

— *Assessment for American Indian and Alaska Native Learners.* R. Bordeaux, Ed.D. (1995), EDO-RC-95-6

— *Blueprints for Indian Education: Improving Mainstream Schooling.* R. A. Butterfield (1994), EDO-RC-94-2

— *Blueprints for Indian Education: Languages and Cultures.* W. Demmert (1994), EDO-RC-94-3

— *Blueprints for Indian Education: Research and Development Needs for the 1990s.* P. Cahape (1993), EDO-RC-93-02

— *The Current Condition of Native Americans.* H. Hodgkinson (1992), EDO-RC-92-7

— ★ *Drop-Out Rates Among American Indian and Alaska Native Students: Beyond Cultural Discontinuity.* R. St. Germaine (1995), EDO-RC-96-1

— *The Emerging Role of Tribal College Libraries in Indian Education.* D. M. Pavel (1992), EDO-RC-92-4

— *Fighting Alcohol and Substance Abuse Among American Indian and Alaska Native Youth.* N. Gale (1991), EDO-RC-91-8

— *Using Literature. American Indians and Alaska Natives in Secondary Schools.* A. Grant & L. Gillespie (1992), EDO-RC-92-6

MEXICAN-AMERICAN EDUCATION

— *Facilitating Postsecondary Outcomes for Mexican Americans.* J. LeBlanc Flores (1994), EDO-RC-94-4

— *Forging Partnerships Between Mexican American Parents and the Schools.* N. F. Chavkin & D. L. Gonzalez (1995), EDO-RC-95-8

— *Hispanics in Higher Education: Trends in Participation.* J. Chahin (1993), EDO-RC-93-05

— *Integrating Mexican-American History and Culture Into the Social Studies Classroom.* K. Escamilla (1992), EDO-RC-92-5

— *Mexican American Women: Schooling, Work, and Family.* F. I. Ortiz (1995), EDO-RC-95-9

— *Mexican Immigrants in High Schools: Meeting Their Needs.* H. Romo (1993), EDO-RC-92-08

— *Use of the Spanish Language in the United States: Trends, Challenges, and Opportunities.* S. Santiestevan (1991), EDO-RC-91-2

MIGRANT EDUCATION

— *Family Lives and Parental Involvement in Migrant Students' Education.* N. F. Chavkin (1991), EDO-RC-91-3

— *Health Problems Among Migrant Farmworkers' Children in the U.S.* G. Huang (1993), EDO-RC-93-01

— ★ *Instructional Strategies for Migrant Students.* V. Menchaca & J. Ruiz-Escalante (1995), EDO-RC-95-10

— *Literacy Education for Adult Migrant Farmworkers.* K. J. Bartlett and F. O. Vargas (1992), EDO-LE-91-05

— *Migrant Farmworkers and Their Children.* P. Martin (1994), EDO-RC-94-7

— *Migrant Students Who Leave School Early: Strategies for Retrieval.* A. Salerno (1991), EDO-RC-91-7

— *Reauthorized Migrant Education Program: Old Themes and New.* A. Wright (1995), EDO-RC-95-1

OUTDOOR/EXPERIENTIAL EDUCATION

— *Changing Schools Through Experiential Education.* P. W. Stevens & A. Richards (1992), EDO-RC-91-13

— *Improving Evaluation in Experiential Education.* B. Hendricks (1994), EDO-RC-94-8

— *Outdoor Education and Troubled Youth.* D. S. Berman & J. Davis-Berman (1995), EDO-RC-95-5

— *Outdoor Education Directory: Organizations Involved in Outdoor Experiential Education* (1993)

— ★ *Recommended Competencies for Outdoor Educators.* M. Richardson & D. Simmons (1996), EDO-RC-96-2

— *Thinking in Outdoor Inquiry.* C. E. Knapp (1992), EDO-RC-92-3

RURAL EDUCATION

— *The Academic Effectiveness of Small-Scale Schooling (An Update).* C. B. Howley (1994), EDO-RC-94-1

— *Charting New Maps: Multicultural Education in Rural Schools.* J. P. Oliver & C. Howley (1992), EDO-RC-92-1

— *Cultivating Resilience: An Overview for Rural Educators and Parents.* M. Finley (1994), EDO-RC-94-5

— *Developing Supplemental Funding: Initiatives for Rural and Small Schools.* R. Carlson (1993), EDO-RC-93-4

— *Efficient Financial Management in Rural Schools: Common Problems and Solutions from the Field.* D. Inman-Frietas (1991), EDO-RC-91-9

— *Funding Rural, Small Schools: Strategies at the Statehouse.* D. Verstegen (1991), EDO-RC-91-10

— *Integrated Services: A Summary for Rural Educators.* M. N. Luffiyya (1993), EDO-RC-92-09

— *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

— *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* G. Huang (1995), EDO-RC-95-2

— *Recent Trends in Rural Poverty: A Summary for Educators.* G. Huang & C. Howley (1991), EDO-RC-91-1

— *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

— *Rural Philosophy for Education: Wendell Berry's Tradition.* P. Theobald (1992), EDO-RC-91-12

— *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

— *What Can I Become? Educational Aspirations of Students in Rural America.* T. Haas (1992), EDO-RC-91-11

SMALL SCHOOLS

— *Small Scale and School Culture: The Experience of Private Schools.* G. E. Conway (1994), EDO-RC-94-6

— *Teaching and Learning in the Multigrade Classroom: Student Performance and Instructional Routines.* B. Miller (1991), EDO-RC-91-6

OTHER

— *School Completion 2000: Dropout Rates and Their Implications for Meeting the National Goal.* C. Howley & G. Huang (1991), EDO-RC-91-5

★ new—published in 1996 or late 1995

said, "The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed" (in Bartlett, 1955, p. 900).

Yes, my classroom has changed. The changes these past few years have not been subtle—nor have they been easy—but they surely have been needed. I have deliberately designed lessons, activities, approaches to address learning styles—and now I'm working on multiple intelligences. I provide a much more deliberate mix of ways to help students understand basic concepts, as well as ways to assess that understanding. Our science classes are a heterogeneous mix of students, so more students are being held to higher standards, not just getting their science credit. This is the most challenging change of all, but one that is essential. This is also allowing us to offer more variety in science "electives" than in the past. The NSES make you ask yourself tough questions—but that's what makes science so interesting!

References

American Association for the Advancement of Science, Project 2061. (1990). *Science for all Americans.* New York: Oxford University Press.

Bartlett, John. (1955). *Familiar quotations.* 13th edition. Boston: Little, Brown.

This article first appeared in Charmed Particles, a publication of the Eisenhower Regional Consortium for Mathematics and Science Education at AEL. Johnson can be reached at Lewis County High School, Box 99, Lion's Lane, Vanceburg, KY 41179; phone 606/796-6610; or FAX 606/796-3066.

Of the Teachers, By the Teachers, For the Teachers

by Sandy Adams, *Grant County High School, Dry Ridge, KY*

Teachers are the ones who see and deal with all the daily problems in classrooms. Who would be better qualified to identify those problems and suggest remedies that have a real chance of correcting the situations? Too often, teachers feel they have no direct voice, no real chance to be heard. And now, with criticisms of Kentucky education reform being heard from people who are not in the classrooms every day, what better time is there for teachers to show the way?

U.S. Education Secretary Richard Riley provided the momentum for a new type of teacher organization that would give teachers a more direct voice in and opportunities for real leadership in all states—the Teacher Forum. The driving force behind it, Terry Dozier, is a former National Teacher of the Year. In her home state of South Carolina, the forum is a huge success—such a success that Secretary Riley would like to see the idea implemented in all states.

Secretary Riley met in November with two Kentucky teachers—Secondary Teacher of the Year Linda McKenzie and Middle School Teacher of the Year Connie Jordan—along with teachers from other states to help establish the Teacher Forum. Headed by state teachers of the year and other exemplary classroom teachers, the forum will encourage ongoing education improvement by involving each state's teachers in education issues. Kentucky is the thirteenth state to initiate such a forum.

In a nutshell, the Teacher Forum will seek direct teacher input on all issues affecting education in Kentucky. The forum will provide teachers an arena in which to discuss issues, form consensus, and share recommendations with appropriate parties. Dedicated to the improvement of education throughout the state, this voluntary organization is nonpolitical, nonpartisan, and nonregulatory.

In addition to being a sounding board for Kentucky teachers, the forum's goals include providing leadership in professional development and serving as a network through which teachers can share ideas and information. The Kentucky State Teacher Forum wants to address issues important to its teachers and accomplish something worthwhile for teachers and students.

What do you see as the most important issues and problems facing Kentucky teachers today? As a starting point, the Kentucky Teacher Forum needs to hear from you. Please send your ideas to Kentucky Teacher Forum, Attn: Donna Melton, Kentucky Department of Education, Room 1918A, Capital Plaza Tower, 500 Mero Street, Frankfort, KY 40601.

★ Kentucky
★ Tennessee
★ Virginia
★ West Virginia

AROUND THE REGION

Listening to the People— Communities Speak to AEL About Local Education Issues

Everyone talks about education reform, but the work of reform happens school by school. What are the issues that real people in real schools—principals, teachers, parents, community members, superintendents, and students—confront as their community strives to provide quality education for all its children?

This spring, AEL begins an annual series of Education Issues Forums in each of the Region's four states. Each year, AEL will convene in three type of communities—rural, urban, and suburban—a cross section of people who care about education to share the successes and struggles of their schools. While the information generated in these meetings is not generalizable in a scientific sense, the depth of knowledge gained through the discussions will provide an understanding of the ways education issues play out in local settings.

This spring's forums focus on *rural* issues in two states—a six-county area of West Virginia and a five-county region in Virginia—*urban* issues in the Nashville area of Tennessee, and *suburban* issues in the area surrounding Louisville, Kentucky. The type of community visited in each state is expected to change each year. Given the rural nature of much of AEL's Region, meetings in two states will always focus on rural communities and schools.

AEL will use the knowledge gained through the forums to target its work to reflect local needs. Equally important, AEL expects the findings to contribute to an understanding of the issues facing schools and whether issues vary in different types of communities. In addition, participants will make connections to new people and ideas as experiences in providing a quality education for all children are shared.

Kentucky Writing Portfolio Project Takes New Slant

AEL's Kentucky project, developed jointly with the department of education to complement state reform initiatives, has been refined as work gets underway. The project—which focuses on the development and assessment of student portfolios in writing—will initially involve schools with high percentages of at-risk students that have achieved success at moving student writing portfolio scores from the apprentice to the proficient level—the second and third steps in a four-level scoring system. The project is designed to learn what teachers in these schools do to accomplish increased levels of student performance. Added to the project later will be schools where writing scores have shown less improvement.

The project will result in a diagnostic-prescriptive process that teachers can use to help their students reach higher levels of success. The process will help teachers assess their students' writing portfolio progress and analyze areas for improvement.

For more information about the Kentucky project, call Sandra Orletsky at AEL or e-mail orletsks@ael.org.

AEL a Partner in NSF's Systemic Initiative in Rural Appalachia

The National Science Foundation's efforts to support systemic change in mathematics, science, and technology education is extending into rural areas. Last fall, a consortium of business and civic leaders, citizens, and educators from six states was awarded a five-year, $10 million grant to support the Appalachian Rural Systemic Initiative (ARSI). The Kentucky Science and Technology Council in Lexington, KY, which houses the ARSI administrative office, spearheaded the consortium's development and serves as fiscal agent for the grant.

ARSI is designed to enhance K-14 teachers' skills in using technology, establishing a coordinated system for making available needed resources and services, and build regional partnerships and local community support needed to sustain long-term improvement. The project targets 88 school districts in 66 rural counties across Kentucky, North Carolina, Ohio, Tennessee, Virginia, and West Virginia. AEL is a key partner in the effort, operating the community engagement strand of the work.

For more information about ARSI or the community engagement component, call Hobart Harmon at AEL or e-mail harmonh@ael.org.

Communication from the School Increases Parents' Confidence and Support for Kids' Learning

Newsletters and other communications from schools help parents become more involved with their children's education by promoting a belief in their ability to influence their children's school success.

An evaluation by the Center on Families, Communities, Schools, and Children's Learning lauds frequent and effective communications—those that inform parents as to what their children are learning in school and how they can support that learning at home.

Researchers Carole Ames, Lizanne de Stefano, Thomas Watkins, and Steven Sheldon say parents who receive such communications more actively support their children's learning. These parents talk to their children about what they learn in school, review and discuss assignments, and keep informed of their children's academic progress.

Communication from school reinforces parents' confidence in their ability to support their children's learning and success in school, giving parents a sense of efficacy that is key to encouraging their involvement. According to the researchers, that sense of efficacy "appears to be especially important for those parents with less formal education," such as a high school education.

The researchers also urge schools not to rely solely on communications to improve parents' self-efficacy. They note, "Additional programs that give parents training in specific skills or that directly involve parents in the instructional process may have even stronger effects on parents' beliefs about their ability to have an influence."

Ordering information: *Teachers' School-to-Home Communications and Parent Involvement* is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3503 N. Charles St., Baltimore, MD 21218 (cite report no. 28, 43 pages, $7.50 prepaid).

AEL Project Helps Get Children Ready to Learn

Want to help children start school ready to learn? Do you live in a rural community? Get acquainted with an AEL project that helps rural communities address concerns and needs related to the Readiness Goal: "All children in America will start school ready to learn." [*Goals 2000: Educate America Act*].

AEL staff work in rural areas that have a high proportion of at-risk children and families to help establish local teams of home, school, and community partners. They also provide training for people who work with children and parents.

The work is based on *The Program for Infant/Toddler Caregivers* developed by the Far West Laboratory and the California Department of Education's Child Development Division.

For more information about this project, call Carol Perroncel at AEL or e-mail perroncc@ael.org.

Weekly Guides Help Families Become Involved in Children's Learning

Looking for a school-to-home communication device that's simple to use and inexpensive? Check out AEL's series of weekly guides, *Family Connections*, which have found their way into more than 65,000 homes in 45 states. They can serve as an important tool to help schools increase parents' involvement in their children's early education. Schools send these colorful four-page guides home with the children weekly—each child receives 30 different issues.

Family Connections 1 was designed for families of preschool children. *Family Connections 2* was developed for families of kindergarten and early primary children. Each issue offers a brief, easy-to-read message for parents concerning such topics as the importance of reading aloud, how children learn through play, or using the public library. Activities inside the guides are educational and fun for both parents and children. They use materials commonly found in most homes and require little preparation by parents. A read-aloud selection can be found in every issue as well.

To find out more about *Family Connections*, see the AEL Order Form to request pricing information and a free sample.

Regional Labs Present Their Best Programs at Potpourri Conference

AEL is one of a national network of 10 Regional Educational Laboratories. (To see the location of all 10 Labs, refer to the U.S. map found in *R&D Watch*.) Last fall, AEL hosted a conference where all 10 Labs shared their knowledge about school change with educators from across the country. The 12 field-tested, R&D initiatives presented are some of the best programs the Regional Labs have to offer.

A conference notebook, including handouts, and audiotapes of the sessions are available from AEL. (See the AEL Order Form.) The programs are listed here:

A+chieving Excellence: An Educational Decision-Making and Management System provides tools to guide a school or district through educational change.

Creating New Visions for Schools features training activities that have proven valuable for fostering reflection and focusing action.

Developing and Evaluating Culturally Sensitive Educational Services and Products in a Multicultural World provides examples of culturally sensitive instructional materials and an emerging evaluation model to address the issue.

Effective Questioning Techniques for the Reflective Classroom is a staff development program (QUILT) that helps teachers improve the quality of their questioning.

Interdisciplinary Teamed Instruction (ITI) is a research-based strategy for dissolving boundaries between disciplines of knowledge.

Leadership for Change is an institute for those who provide training and technical assistance to educational leaders responsible for guiding and supporting implementation of change and improvement.

Leadership for Collaboration is a two-day training program for community-based teams interested in joining forces to promote change in their schools and communities.

Onward to Excellence: Making Schools More Effective is a two-year training and technical assistance program that leads school teams through a research-based, 10-step process focused on improving student performance.

Pathways to School Improvement allows users to "visit" (via computer) other schools that have successfully implemented change and select from a wide range of resources to help their schools in the change effort.

Peer-Assisted Leadership (PAL) is a research-based professional development activity that helps peer partners engage in a process of collaborative inquiry and interpretation of their work.

Strategic Teaching/Reading Project is a unique approach to staff development that defines reading as constructing meaning rather than finding meaning.

Urban Learner Framework provides a guide to the restructuring of urban schools, presenting a new vision of the urban learner as culturally diverse, capable, motivated, and resilient.

LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone
304/347-0400
800/624-9120
304/347-0487 (FAX)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Bowman

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Non Profit Org.
U.S. POSTAGE
PAID
CEDaR

[illegible]
AEL
PO BOX 1348
CHARLESTON WV [illegible]

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 15
No. 3
•
Fall
1996

Preventing Antisocial Behavior in Disabled and At-Risk Students

by Soleil Gregg, AEL Staff

The public expects schools to socialize children as well as to educate them. In fact, socialization, rather than academics, is why many parents choose public education over private or home school. However, public criticism of schools' performance in both roles has increased in recent years. The public wants schools to be responsible not only for improving achievement, but also for curbing disruptive, violent, and antisocial behavior. As a result, support is growing for "zero tolerance" discipline policies and alternative school placement for disruptive students.

Discipline is a reaction to behavior that has already occurred. Schools may also need to focus their efforts on prevention. Research has identified risk factors that contribute to the development of antisocial behavior, as well as protective factors that help children develop resiliency to overcome risk.

Risk and Antisocial Behavior

Research shows that most antisocial behavior develops from a combination of risk factors associated with individuals, families, schools, and communities. The same factors apply across races, cultures, and classes, and their effects are cumulative—exposure to multiple and interacting risk factors exponentially increases a child's overall risk. Also, antisocial behavior evolves over the course of childhood, often beginning in the preschool and elementary years and peaking in late adolescence/early adulthood. Direct, early intervention can halt its progress; once firmly established, however, antisocial patterns become more difficult to change and can persist into adulthood.

General Risk Factors for Antisocial Behavior

Several general factors put **all** children at risk for antisocial behavior. The presence of multiple factors increases risk; conversely, their elimination reduces risk. These general factors group around inborn traits and characteristics related to personality, temperament, and cognitive ability; family, community, and societal

[*continued on page 2*]

AEL celebrating 30 YEARS OF SERVICE to educators in Kentucky, Tennessee, Virginia, and West Virginia

In this issue:

INSIDE AEL
Preventing Antisocial Behavior in Disabled and At-Risk Students, p. L-1
Spanish Edition of *Family Connections 1* Available Soon, p. L-4
AEL Offers EdTalk on Reading, p. L-4

AEL AROUND THE REGION
Cybercommunity Shares Experiences with Interdisciplinary Teamed Instruction, p. L-4
Need Help in the High-Tech World? p. L-5
Free Workshops Help Teachers Align Classroom Instruction with National Standards in Mathematics and Science, p. L-5

FOCUS ON INSTRUCTION
Enlivening History in Bowling Green Schools, p. L-6
Becoming an Advocate for Economic Education, p. L-7

NOTEWORTHY
ERIC on CD-ROM Affordable, p. L-8
School District Data Available on Internet, p. L-8

[*continued from page 1*]

characteristics; and school-related issues (see box). No one factor dooms children to misbehavior or crime, but can make them more susceptible to other risks.

Risk Factors for Antisocial Behavior

Individual

Impulsivity; the inability to adopt a future time perspective or to grasp future consequences of behavior; the inability to delay gratification; the inability to self-regulate emotions, especially temper; the need for stimulation and excitement; low harm avoidance; low frustration tolerance; central nervous system dysfunction; low cortical arousal; a predisposition to aggressive behavior; low general aptitude or intelligence; exposure to violence and abuse (as either a victim or a witness); alienation; rebelliousness; association with deviant peers; favorable attitudes toward deviant behavior; peer rejection; alcohol and drug abuse; and early onset of aggressive or problem behavior.

Family/Societal

Economic deprivation and unemployment that limit access to food, shelter, transportation, health care, etc.; parental history of deviant behavior; favorable family/community attitudes toward deviant behavior; harsh and/or inconsistent discipline; poor parental and/or community supervision and monitoring; low parental education (especially maternal education); family conflict; disruption in care giving; out-of-home placement; poor attachment between child and family; low community attachment and community disorganization, as evidenced by low parent involvement in schools, low voter turnout, and high rates of vandalism and violence; parental alcoholism; social alienation of the community; availability of drugs and guns; high community turnover; and exposure to violence, including violence in the home, community, and media.

School-based

Academic failure beginning in elementary school; poor academic aptitude test scores—especially in reading—beginning in Grades 3 and 4; lack of commitment to school; lack of belief in the validity of rules; early aggressive behavior (in Grades K-3); lack of attachment to teachers; low aspirations and goals; peer rejection and social alienation; association with deviant peers, including grouping antisocial children together for instruction and/or punishment; low student/teacher morale; school disorganization; ineffective monitoring and management of students; and poor adaptation to school, as evidenced by retention and attendance rates, assignment to special education, and student reports of not liking school, lack of effort, alienation, and punishment.

Especially relevant to educators are school-related findings. Chronic school failure demoralizes children, can cause loss of status and rejection by peers, destroys self-esteem, and undermines feelings of competence. As a result, it can undermine a child's attachment to teachers, parents, school, and the values they promote. It also generates hopelessness and helplessness. Children cease to believe that their efforts make a difference in outcomes. For delinquent youngsters, "school is not a place of attachment and learning, but of alienation and failure."[1]

In addition, an analysis of disruptive behavior in 600 schools revealed that schools with discipline problems tend to be large and urban; lack teaching resources; lack fair, clearly stated, consistently enforced rules; have students who do not believe in the rules; lack leadership and cooperation among staff; and have punitive teachers. One study found punishment and lack of praise by classroom teachers to be main factors related to delinquent behavior.

Resiliency: Overcoming Risk

The majority of children do well in life despite adversity and exposure to multiple risks. Children who are able to thrive despite risks are said to be resilient. Researchers have identified certain protective factors that can help promote resilience and prevent negative outcomes.

General Protective Factors

Protective factors, like risk factors, can be located within individuals, families, communities, and schools. They apply to **all** children, including those who are disabled and otherwise at risk. The effects of these factors are cumulative—the more factors present, the greater their influence.

Individual traits. Resilient children tend to be socially competent, autonomous, not easily frustrated, able to bounce back, not quick to give up, good natured, optimistic, intelligent, appealing to adults, and able to elicit positive attention and support. They have good problem-solving skills, a sense of purpose and personal control, a future orientation, and high self-esteem. Resilient children learn to define themselves by their strengths and talents rather than their weaknesses, are valued by others for their talents, develop a sense of personal mastery, and contribute to society by performing socially desirable tasks. Females in general have less proclivity for disruptive behavior.

Families/communities. Families of resilient children exhibit warmth, affection, and emotional support. Children and parents or caretakers form mutual attachments, and children are monitored and supervised. Likewise, communities can nurture, monitor, supervise, and convey prosocial values to children.

Schools. Rutter says, "Schools that foster high self-esteem and promote social and scholastic success reduce the likelihood of emotional and behavioral disturbance."[2] These schools, according to Benard, "establish high expectations for all students"—including those with disabilities—and provide students "the support necessary" to achieve them.[3] They convey compassion, understanding, respect, and interest for children and families; and present opportunities for meaningful participation. They identify children's strengths and talents—their "islands of competence"[4]—and organize learning accordingly, incorporating learning styles; multiple intelligences; and an accelerated, rich curriculum that includes art, music, and athletics. They design classroom instruction to accommodate various ability levels and maximize learning time.

Research shows that school organization—management, governance, culture, and climate—can reduce overall measures of student disruption as effectively as individual treatment programs.

Effective schools involve "community agencies, students, teachers, school administrators, and parents"[5] in decisionmaking, and focus "on improving communication, building trust and cooperation, enhancing the organization's problem-solving and decision-making capabilities, and strengthening [the] planning process."[6] Through cooperation and collaboration, schools can draw on internal and community resources to meet students' needs.

Other school-related, protective factors identified through research include boosting achievement in mathematics and reading (especially 4th-grade reading scores), commitment to school, and attachment to teachers.

Conclusion

No silver bullet can eliminate behaviors resulting from neurological impairment, disadvantage, and social disintegration. But those who care for the nation's children—schools, families, and communities—can pull together to consider what is going wrong and what can be done to prevent it, based on solid knowledge of how children develop antisocial or prosocial behavior. By identifying both risk factors and protective factors, research has given us the tools to build solutions—like barriers at the tops of cliffs that keep children from falling—and has restored our hope that we, collectively and individually, can make a difference.

References

1. Hawkins, J. (1995). Controlling crime before it happens: Risk-focused prevention. *National Institute of Justice Journal, 229*, p. 10.
2. Rutter, as cited in Benard, B. (1995). Fostering resiliency in urban schools. In B. Williams (Ed.), *Closing the achievement gap: A vision to guide change in beliefs and practice* (p. 70). Oak Brook, IL: Urban Education National Network, North Central Regional Educational Laboratory.
3. Benard, B. (1995). Fostering resiliency in urban schools. In B. Williams (Ed.), *Closing the achievement gap: A vision to guide change in beliefs and practice* (p. 70). Oak Brook, IL: Urban Education National Network, North Central Regional Educational Laboratory.
4. Brooks, R. (1992, Fall, Winter). Fostering self-esteem in children with ADD: The search for islands of competence. *Chadder*, p. 14.
5. Gottfredson, D. (1984). *Environmental change strategies to prevent school disruption* (p. 3). Washington, DC: U. S. Department of Justice.
6. Gottfredson, D. (1986). *Promising strategies for improving student behavior* (p. 6). Paper prepared for the Conference on Student Discipline Strategies of the Office of Educational Research and Improvement. Washington, DC: U. S. Department of Education.

This article was excerpted from an AEL Policy Brief that examines the research on both risk and protective factors, especially in regard to Attention Deficit/Hyperactivity Disorder (ADHD) and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policymaking. The author has personal experience with ADHD both as a classroom teacher and a parent. This brief is the fourth and final in a series on ADHD. To obtain a copy of this brief or others in the series, use the AEL Order Form.

Spanish Edition of Family Connections 1 Available Soon

You've probably heard about *Family Connections*—AEL's school-to-home communication guides that are simple to use and inexpensive. These weekly guides, which have found their way into more than 65,000 homes in 46 states, are now being produced in Spanish. *Relaciones Familiares 1* will be available this fall—perhaps by the time this issue of *The Link* reaches you. Head Start programs and others that serve Spanish-speaking populations have waited eagerly for the Spanish-language edition of this tool to enhance home-school partnerships. Each child receives a different issue each week during the school year.

Family Connections 1 was designed for families of preschool children. *Family Connections 2* was developed for families of kindergarten and early primary children. Each issue offers a brief, easy-to-read message for parents concerning such topics as the importance of reading aloud, how children learn through play, or using the public library. Activities inside the guides are educational and fun for both parents and children. They use materials commonly found in most homes and require little preparation by parents.

Use the AEL Order Form to request pricing information and a free sample.

AEL Offers EdTalk on Reading

Copies of *EdTalk: What We Know About Reading Teaching and Learning* (reviewed in the April 1996 issue of *R&D Watch*) are now available for $5 through AEL's Distribution Center. The publication aims to inform practitioners of the latest knowledge in reading education and offers pointers on how to help students improve reading skills and strategies. To order, see the AEL Order Form with this issue.

★ Kentucky
★ Tennessee
★ Virginia
★ West Virginia

AEL AROUND THE REGION

Cybercommunity Shares Experiences with Interdisciplinary Teamed Instruction

Although school reform experts are urging schools to become learning communities, most teachers still work in isolation. Many are not provided adequate time to meet and plan collaboratively with colleagues; others live in rural areas miles from educational resources. Educators interested in exploring and learning more about interdisciplinary instruction are using the Internet to jump barriers of time and space.

The AEL-moderated Interdisciplinary Teamed Instruction (ITI) Listserv discussion group uses e-mail to share values and beliefs about improving instruction, to engage in reflective dialogue, and to discuss the implications for professional practice. The 250 subscribers hail from 29 states and four foreign countries—Canada, Brazil, Argentina, and Israel.

A recent survey of participants underscores the value of professional networking. They report the helpfulness of practical information they receive from the discussion moderator and other educators—teaching techniques, lesson plans, thematic units, and assessment rubrics. They also appreciate the theoretical discussions. One commented, "Opinions, research, and practices on this Listserv provide information that we use to validate what we are doing and how we are doing it. We are able to use this information to modify what we are doing. We value the dialogue with our fellow educators." Another said, "I most appreciate the from-the-heart comments of the many obviously talented teachers on line." Still another reported, "It is wonderful to have access to so many informed and enthusiastic educational leaders." A foreign participant commented, "Here in Brazil, it is so difficult to get professional magazines or to go to conferences, so having all these ITI ideas flowing down to us helps keep us current and excited."

Subscription to the Listserv is free, but requires access to e-mail. If you are interested in interdisciplinary instruction and would like to become part of this electronic community, call Becky Burns (800/624-9120) or e-mail burnsb@ael.org.

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Please use this form to order materials from AEL.
Check (✓) your selections, and complete the shipping information below.

Be sure to remove **all four** pages,
and don't forget to **include payment** for priced items.

The Link Vol. 15, No. 3 • Fall 1996

(fold here)

Shipping information: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage Required

Daytime phone or e-mail: ____________________
(in case we have a question about your order)

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

___ *Community Service/Service Learning: An Implementor's Guide and Resource Manual* (1996)

Service learning—the concept of providing instruction through the study of community issues—can help students become action-oriented problem solvers while they learn more about their community, careers, and themselves. The guide—for educators as well as community and business representatives—describes four service learning models; suggests activities for various school levels; highlights 27 Kentucky projects; provides descriptions of more than 300 resources (curriculum guides, leader and student books, videos, etc.); and provides contact information for nearly 100 organizations that offer technical assistance and training. $14; 187 pp.

___ *EdTalk: What We Know About Reading Teaching and Learning* (1996), $5; 70 pp. (See description on page L-4 of *The Link*.)

___ *ERIC/CRESS Bulletin*

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants. Free.

___ *Family Connections 1 and 2*

Spanish edition (*Relaciones Familiares 1*) available soon. Pricing information and free sample issue. (See description on page L-4 of *The Link*.)

___ *The state of state education accountability* (1995), J. D. Stern

Throughout the nation, states are deploying accountability initiatives to forge integrated, systematic approaches to education reform. State education accountability is a direct response to the public's demand for improved education outcomes. In nearly every state, education reform incorporates goals that have been linked to assessment and reporting systems. This issue of *Policy Briefs* describes the impetus for, and approaches to, state education accountability. It relates this general discussion to specific education reforms in each of the four AEL states. $2; 12 pp.

Series of Policy Briefs on Attention-Deficit/Hyperactivity Disorder (ADHD)

___ *ADHD—New legal responsibilities for schools* (1994), S. Gregg

This issue of *Policy Briefs*—the first in a series on ADHD—explains how the Individuals with Disabilities Education Act, Part B, Section 504 and the Americans with Disabilities Act apply to children with ADHD. It defines the responsibilities of schools and state education agencies for locating, evaluating, and educating these children, includes questions for policymakers to ask about providing services, and reviews teacher training and support systems in AEL's four-state Region. $2; 8 pp.

___ *Understanding and identifying children with ADHD: First steps to effective intervention* (1995), S. Gregg

The purpose of this issue of *Policy Briefs* is to help policymakers understand ADHD and its effects on students. The second in a series, the brief reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2; 8 pp.

___ *ADHD—Building academic success* (1995), by S. Gregg

The third in a series of *Policy Briefs* on ADHD, this brief examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

___ *Preventing Antisocial Behavior in Disabled and At-Risk Students* (1996), S. Gregg

This issue of *Policy Briefs*, which completes the series on ADHD, examines risk factors that contribute to the development of antisocial behavior, as well as protective factors that help children become resilient to risk, especially children with ADHD and learning disabilities. It also presents a model that promotes prosocial behavior and suggests consideraitons for preventive practice and policymaking. (*See* lead story in this issue of of *The Link*.) $2; 8 pp.

Products from Eisenhower Regional Consortium for Mathematics and Science Education at AEL

___ *Charmed Particles*

The newsletter of the Eisenhower Regional Consortium for Mathematics and Science Education contains articles about what's happening with national policy and standards related to math and science; research about methods, assessment, and curriculum; what's being talked about by legislators, researchers, state departments of education, and college-based teacher educators; questions being asked about math/science education; and funding sources for projects. Free.

___ *Scope it out: Standards-based microscope lessons for the middle school* (1996)

Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource treats the microscope as both a scientific discovery and as a tool for science. The publication contains lessons developed by classroom teachers, as well as information about laboratory safety, the development and mechanics of the microscope, and classroom activities reflecting the *National Science Education Standards*. $5; 62 pp.

___ *Increasing student access to mathematics and science: A guide for classroom equity projects* (1995)

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. Limited instructional materials, equipment, and/or human resources may prevent classroom projects that address the needs of underserved students. The guide provides a description of projects, tips from teachers, and information on funding sources and proposal writing. $5; 44 pp.

BEST COPY AVAILABLE

R&D watch

volume 1 • number 3
August 1996

a review of
education research
and development
findings

Contents:

Trends: *Seeking Universal Input* —— page 2

Technology: Classroom Discoveries

- *Learning with Technology: Merging onto the Information Highway* —— page 3
- *Tales from the Electronic Frontier* —— page 3
- *Internet Jones: An Educator's Guide to Travelling on the Information Superhighway* —— page 4
- *Urban Audio Journal: Computers and Education and Integrating Technology and Education: A Resource Booklet* —— page 4

Reading and Literacy: Creative Approaches to Instruction

- *Elementary and Middle School Partnerships: The Centrality of Relationships in Literacy Learning* —— page 5
- *Building Equity in Early Literacy: Two Case Studies on Improving the School Literacy Program* —— page 5

Assessment: Making Appropriate Choices

- *Making Appropriate and Ethical Choices in Large-Scale Assessments: A Model Policy Code* —— page 6
- *Improving Science and Mathematics Education: A Database and Catalog of Alternative Assessments, 3rd Edition* —— page 6
- *Guide to Developing Equitable Performance Assessments* —— page 7

Education Reform: It Happens in the Classroom

- *What's Noteworthy on Learners, Learning, and Schooling* —— page 7
- *A View from the Bottom Up: School-Based Systemic Reform in California, Volume III* —— page 8

Learning English: Taking Students' Perspectives into Account

- *Conceptualizing Academic Language* —— page 8
- *Using Audiotaped Books to Extend Classroom Literacy Instruction into the Homes of Second-Language Learners* —— page 9

Effective Practices: Tailor-made by Teachers

- *Local Schools of Thought: A Search for Purpose in Rural Education* —— page 9
- *Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning* —— page 10

Also: *Evaluating Job-Training Programs in the United States: Evidence and Explanations* —— page 10

R&D Resources —— page 11

R&D Watch
is provided by

AEL
celebrating
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325-1348
304/347-0400 • 800/624-9120
304/347-0487 fax
[illegible]
[illegible]

Seeking Universal Input

In February of this year, President Clinton signed into law the Telecommunications Act of 1996. Most people acknowledge this law as one of the significant legislative milestones of the past decade. It promises to have profound effects on everyone who depends on telecommunications in some facet of their lives. Accordingly, it garnered significant attention and press, what with its impact on everything from cable television to children's exposure to indecent material over the Internet. But with all the hoopla attending those controversies, little attention focused on a part of the law that, if instituted wisely, may have the greatest impact — a provision to improve the quality of elementary and secondary education and access to information in our public libraries.

Section 504(h) of the Telecommunications Act (P.L. 104-104) requires that schools and libraries be given *affordable access* to the Internet. Special services that support education are to be provided at a discount to schools and libraries across the nation so that they can get on the information highway. The law does not provide resources to purchase computers or to make the infrastructure adjustments that schools and libraries need to make, but it does offset one of the biggest ongoing expenses of distance learning and Internet access: connectivity charges. Many schools have learned the hard way that, even after purchasing state-of-the-art computers, the promises of the Internet are out of reach because they cannot afford the telephone charges. These charges, often at rates higher than those for residential areas, are considerable, especially if schools intend to give many students access to distance learning resources and the Internet at the same time.

The original telecommunications law, passed in 1934, established a concept known as universal service that provided all Americans with basic dial tone and, later, emergency 911 access. To subsidize this, consumers in densely populated, inexpensively connected places assumed some of the costs of connecting sparsely populated, hard-to-reach locations. Now the telecommunications law has expanded "universal service" to include discounted service to schools.

The law establishes this goal of affordability but does not specify how to implement it. The tasks of defining *what* services belong in the law's category of "special services" and setting a rate of discount to put distance learning and access to the information highway within schools' reach are left to the Federal Communications Commission (FCC), which will receive recommendations from a recently appointed board by late fall of this year. Because federal law dictates that the FCC only has jurisdiction over communications policy *across* state lines, the state public utility commissions (PUCs) that control communications policy within state lines will play a role as well.

The FCC has requested input from all concerned parties in making these determinations. The burden of reducing the costs of connectivity for schools is to be borne by all telecommunications carriers. Not surprisingly, the business interests of the telecommunications carriers are already fully engaged in the dialogue about what services are to be included and at what price. Meanwhile, since so few educators are aware of their historic opportunity to take part in revolutionizing school learning, the professional education community has not made its needs known either to the FCC or to state PUCs.

<continued on page 12>

Students Enthusiastically Using Internet to Learn About Newest Information

Most classes at Madison Middle School 2000 don't use textbooks anymore. Educators at this Wisconsin school realize that printed texts can't keep up with rapidly changing information. So students research their school assignments on the Internet.

The Internet's value lies not only in the breadth of its resources but also in the skills students gain and the enthusiasm students, educators, and collaborating professionals share when using it. A videotape produced by the North Central Regional Educational Laboratory illustrates ways in which several schools and classrooms are using the Internet. It also discusses how schools can establish an Internet educational program.

Students at Kelly High School in inner-city Chicago have ongoing discussions with scientists at Argonne National Laboratory, part of the U.S. Department of Energy, thanks to Internet access. Students and teachers participate in the "Ask a Scientist" program, in which they ask science questions and receive responses from the scientists.

Together with professionals at AT&T, Kelly High students also used the Internet to research a real-world problem: how to design a wireless communications system. The students communicated with the AT&T staff predominantly through the Internet and other electronic methods.

Giving students access to the Internet may seem expensive, but schools might consider reallocating textbook funds, as Madison Middle School 2000 did. State departments of education, foundations, and corporations may also fund such an endeavor. The video provides tips for good staff development to ensure that teachers help students use the technology meaningfully. It also describes different types of Internet systems and the computer capabilities required for each.

To Order

Learning with Technology: Merging onto the Information Highway is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. MIH-V-GBK-95-RD, 1 hour videotape and 28-page viewer guide, $39.95 prepaid).

Teachers Share Tales of Internet Encounters to Promote Inquiry Among Peers

Hampered by meager resources and no funding for field trips, eighth-grade teacher Linda Maston struggled to interest her students in science. With just one old computer, a modem, and a phone line, she and her students were able to participate in Global Lab, an international network of schools conducting joint scientific and environmental investigations. Maston relates her experience in a collection of nine teacher-written accounts of using the Internet in K-12 mathematics and science education.

Using e-mail to exchange air quality measurements with students from other schools, Maston and her students discovered that their carbon dioxide levels were abnormally high. Consulting experts, again by e-mail, students then determined causes and possible solutions to this problem.

"Communication with a worldwide peer group was crucial — it made the problem real and important," Maston notes. "[Students] found they could make contributions to the global scientific community. Our lack of resources didn't hold them back."

Colorfully illustrated, first-hand accounts reveal the Internet's potential to enhance instruction and professional growth. Drawing on successes and dilemmas, the narratives show educators how to anticipate the challenges and limitations of the Internet.

"Teachers' stories are compelling, not only because they share experiences, but because they generate inquiry. A well-told story reminds us of our own experiences, encouraging us to reinterpret them from another perspective," write researchers from the book's publisher, WestEd Eisenhower Regional Consortium for Science and Mathematics Education.

Each tale is followed by a "Questions and Issues" section designed to foster discussion of instructional practice. Over 50 annotated resources provide descriptions and contacts for Internet-related education projects, organizations, and Web sites.

To Order

Tales from the Electronic Frontier is available from WestEd, 730 Harrison St., San Francisco, CA 94107-1242 (84 pages, $9.50 plus tax, shipping and handling). For an order form or information about discounts, contact Sally King by phone (415/546-6481), fax (415/241-2746) or e-mail (tales@WestEd.org).

Educators are realizing the educational benefits of the Internet and other education technologies even as they are uncovering dilemmas and limitations that accompany these new media. Information from teachers and students with technology experience is invaluable to novice users.

Comic Book for Novice Internet Users Links Educators to Useful Resources

Daunted by the whole "information superhighway thing?" Wondering what educational resources are available on the Internet that can boost your instruction and your students' learning? Confused about how to find them? Have no fear — Internet Jones is coming to the rescue!

Research for Better Schools and the Mid-Atlantic Eisenhower Consortium for Mathematics and Science Education take a comic-book way of explaining the basics of the Internet to educators. The illustrated story begins with teacher Juanetta Jones looking for ways to enrich her classroom instruction and "offer her students the world." A trip to the library introduces her to the Internet and the educational benefits available online.

"With access to the Internet, mild-mannered teacher Juanetta Jones becomes ... INTERNET JONES! Bringing the electronic world of virtual reality to her students!" the story continues. Using this light-hearted approach, the authors describe the fundamentals of getting online, communicating with education and student peers, and accessing information from around the world. For instance, the story explains how classes can use the Internet to access other institutions — from science museums to NASA — and how teachers can download texts of important documents.

Among the topics introduced are e-mail functions, user groups, listservs, Telnet, file transfer protocol (FTP), gophers, and the World Wide Web. Specific attention is given to education resources including *Newton*, an electronic bulletin board that promotes mathematics, computer, and science education improvements, and *Edupage*, a summary news service on technology sponsored by a consortium of colleges and universities.

In addition to the comic book tale, the publication highlights some aspects of the Internet in more detail and provides a reference list of useful "places to go" and their online addresses, including the Department of Education's web page, a Goals 2000 listserv, and Library of Congress' database.

To Order

Internet Jones: An Educator's Guide to Traveling on the Information Superhighway! is available from Mid-Atlantic Eisenhower Consortium for Mathematics and Science Education, Research for Better Schools, 444 North Third St., Philadelphia, PA 19123; 215/574-9300, ext. 280 (120 pages, free while supplies last).

It's Unclear Whether Schools Will Use Computers in Most Effective Way

Schools nationwide added one million computers last year, so that one computer is now available for every eight students. Acknowledging this positive trend, National Public Radio reporters caution, "The question today is not, 'Will schools deploy the new information technology?' The question is, 'Will they deploy it in effective ways?'" NPR's series on computers and education is available on audiotape from the North Central Regional Educational Laboratory.

When used to their potential, computers can foster authentic, interdisciplinary learning. To North Carolina teacher Becky Kirkendall, "The computer is a tool ... like a good book, a piece of chalk, or an overhead projector" that reinforces the content of her lessons, NPR's Claudio Sanchez reports.

However, while integrating computers into the curriculum in this way remains the ideal, it is not always a reality. Reporter John McChesney notes that 54 percent of schools in one study reported keeping computers in labs rather than in classrooms, mostly because there weren't enough to go around. Unfortunately, lab settings reinforce using computers outside any relevant learning context.

"Even though this new technology clearly offers great promise for education, finding the resources and the wisdom to use it effectively will not be an easy task," maintains McChesney.

The audiotape's companion resource booklet features annotations of articles, books, videos, and magazines on education and technology as well as descriptions of national technology programs.

To Order

Urban Audio Journal: Computers and Education and *Integrating Technology and Education: A Resource Booklet* are available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. UAJ-2-95-RD; 50-minute audiotape and 46-page booklet, $19.95 prepaid. For booklet only, cite no. UAJ-2B-95-RD; $9.95 prepaid).

reading and literacy

Reading — the first of the "three R's" — is an essential part of learning. Educators seeking to supplement tried-and-true techniques are finding success with some interesting and unique approaches to reading instruction.

Partnerships Motivated Students to Write, Improved Their Thinking Skills

A unique partnership between elementary and middle school students got both sets of students excited about writing and helped to improve their thinking skills in language arts.

Teachers Johni Mathis and Georgiana Sumner, working with researcher Michelle Commeyras, describe pairing Mathis' eighth-grade students with Sumner's second graders in an instructional resource published by the National Reading Research Center. The older students were to observe a videotape of the second graders discussing a storybook in hopes of understanding their partners' thought processes.

But the eighth graders thought that they should first introduce themselves to the younger students by writing autobiographies. Students discussed how to organize the autobiographies and reacted to each other's writing. "Johni had been struggling to interest them in peer editing for months, and now they were doing it of their own accord," write the authors.

At that point, the teachers had each set of students read the same books and discuss them. Sumner videotaped her students' conversations and sent them to the eighth graders. The eighth graders watched the tape and compared and contrasted their discussions with those of the second graders.

The eighth graders then wrote letters to their partners about the quality of responses they observed. The younger students took the eighth graders' observations to heart, writing back comments such as, "I wasn't paying enough attention." Mathis' students also posed questions that made Sumner's class think more intently about the literature, suggested ways to get more involved in literature discussions, and complimented students on their thinking abilities. The project boosted confidence among all students, note the authors.

To Order

Elementary and Middle School Partnerships: The Centrality of Relationships in Literacy Learning is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite Instructional Resource No. 10, 25 pages, $4 prepaid; make checks payable to "NRRC/UGARF").

Schools Expand Literacy Instruction Through Traveling Books & Study Groups

When educators at the Cherry Valley elementary school in Polson, Montana, wanted to educate parents about how children become literate so that parents could support literacy learning at home, each Cherry Valley classroom created a "traveling book."

In the book, each child wrote a page on the same topic. Teachers bound the book and sent it home, along with an explanation of "developmental spelling" — the stages through which children pass as they learn to read and write.

"It's safe to say that whatever anxiety parents might initially have about 'incorrect spelling' in children's stories fades as they consult the developmental spelling page in each traveling book, noting the progress their own child — and the other children — are making in conventional spelling as well as complexity of writing," writes researcher Jane Braunger of the Northwest Regional Educational Laboratory.

The McMinnville school district in Oregon wanted to improve teacher knowledge about language and literacy. To support this goal, schools held "reading/study groups," in which teachers read and discussed articles from professional journals and other resources. In one school, teachers also shared their experiences — successes and failures — with implementing alternative assessments.

Braunger notes that not all changes went smoothly or as planned. For example, other teachers in the district and the school board itself criticized Cherry Valley teachers for implementing a whole-language curriculum, fearing that students would not learn basic skills such as spelling or punctuation. Cherry Valley teachers realized that they should have educated their critics in advance that students would still learn these skills, just in a more authentic context.

To Order

Building Equity in Early Literacy: Two Case Studies on Improving the School Literacy Program is available from the Northwest Regional Educational Laboratory, Office of Marketing, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NE-696-BD, 77 pages, $13.35 prepaid).

Assessment results are only as good as the assessments from which they come. Designing assessments that best gauge students' abilities requires diligence and openmindedness among educators.

Code Guides Ethical Preparation, Administration of Large-Scale Assessments

If teachers are going to be held accountable for students' test results on large-scale assessments — those that policymakers and administrators often use to make crucial decisions about students, faculty, and schools — it's logical for them to want to teach the material that appears on the tests. However, so-called "teaching to the test" can invalidate the results and narrow the scope of what students learn, explains Gregory Bell in a report for the North Central Regional Educational Laboratory.

To prevent this, Bell has created a "code" of ethics to guide educators in preparing students for assessments, administering the assessments, and interpreting the results.

Bell's code of ethics includes educating teachers about appropriate methods for test preparation. For example, educators can prepare students to master objectives of the assessment but shouldn't base curriculum solely on such objectives. Nor should they prepare students using old versions of the assessment instrument.

To enforce these guidelines, administrators would have to become monitors, making unannounced observations and taking disciplinary action against egregious violations, Bell suggests.

Bell warns educators to follow the developers' guidelines on assessment administration and testing conditions. "Mak[e] exceptions only after consultation with the developer, or upon carefully considered professional judgment in the best interests of the children being assessed," he says.

Bell adds that administrators and policymakers should refrain from improperly interpreting and using assessment results — including comparing students, classes, or schools — without accounting for the differences that may affect performance. They should also clearly explain to parents and the public what assessment scores mean.

To Order

Making Appropriate and Ethical Choices in Large-Scale Assessments: A Model Policy Code is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (use order no. RPIC-MEAC-94-RD, 25 pages, $8.95 prepaid).

Database Provides Wealth of Info on Math & Science Alternative Assessments

Why spend time digging up information on alternative assessments in mathematics and science when the regional educational laboratories have already done so?

For assessment specialists, curriculum coordinators, and other educators interested in designing alternative assessments, a computer database designed by the regional educational laboratories houses information on 208 science and mathematics alternative assessments for all grade levels. Alternative assessments are those for which students respond to open-ended questions or complete broadly defined tasks.

Information in the database comes from several sources, such as national and international journals, ERIC Clearinghouses, universities, professional organizations, and publishers of education assessments. A catalog accompanying each database computer disk provides a hard copy version. The database is an updated third edition with information on some assessments not included in previous editions.

Each listing in the database describes the assessment, its purpose, the grade levels and student populations it is appropriate for, and contact information. It also contains information on the tasks that the assessment has students perform and the criteria by which teachers ought to judge student performance. Although the database does not contain the assessments themselves, it tells users where they might find copies of them.

Users of the database may limit their search to find only those assessments that meet their individual needs. For example, educators may specify that they're interested in learning about alternative assessments in mathematics for fourth or fifth graders, and the computer will display the appropriate listings.

To Order

Improving Science and Mathematics Education: A Database and Catalog of Alternative Assessments, 3rd Edition (catalog and disk) is available from Northwest Regional Educational Laboratory, 101 S.W. Main St., Suite 500, Portland, OR 97204 (use order no. NL 4/96-RD; 155 pages and 3.5" MS-DOS or Macintosh disk, $18.50 prepaid; please specify MS-DOS or Mac disk with order).

assessment

Cultural Equity Makes a Difference in Performance Assessment Tasks

Imagine how hard it is for students who have never seen snow to fully grasp the dangers of an avalanche. Or for rural students to relate to the problems of traffic gridlock. Or for urban students to relate to readings about harvesting. Now imagine the disadvantage these students have when their assessments are built upon these concepts.

A guide produced by WestEd encourages schools and districts to consider culture and language issues when developing, administering, and interpreting assessment tasks. The guide outlines a staff development workshop, complete with overheads and several sample assessment tasks.

"A failing performance may indicate the degree of disconnection between the task and the student's frame of reference, rather than the degree of mastery of the knowledge and skills being assessed," warn researchers Nanette Koelsch, Elise Trumbull Estrin, and Beverly Farr.

The guide suggests how to develop performance assessments that are in tune with students' particular cultures. Using relevant content references is just a start, says Estrin. If the goal is to find out what students know and can do, equally important is allowing them to demonstrate their knowledge in a culturally appropriate fashion.

For example, among many American Indian groups it is inappropriate to respond quickly to a question without due deliberation, and the choice of a single answer over all others is considered invalid. So at times, multiple choice tests may not elicit what these students have truly learned. Other options are called for.

The researchers also describe how educators can develop more flexible assessment tasks that, for example, integrate students' learning and thinking styles with a school's expectations for learning.

To Order

Guide to Developing Equitable Performance Assessments is available from WestEd, 730 Harrison St., San Francisco, CA 94107-1242 (cite order no. PD-95-01-RD, 75 pages, $10 prepaid).

---

education reform

Band-aids and patches are not enough to "fix" what's wrong with our schools. What's required, above all else, is a willingness to reevaluate and restructure all aspects of failing programs.

Systemic Reforms Must Address Personal, Technical, Organizational Domains

Many current education reforms focus on improving a particular aspect of student learning. A more perplexing dilemma facing educators, however, is implementing an enduring set of *coherent* reforms.

Here's some advice from a publication by the Mid-continent Regional Educational Laboratory: "In order to be systemic and sustainable, educational reform that facilitates learning and achievement of students must simultaneously address the personal ... technical ... and organizational domain[s] of the educational system." The publication expands on these domains in eight articles.

Three articles on the personal domain cover topics such as how beliefs and attitudes affect learning. In one article, Loyce Caruthers describes how classroom interactions — between teachers and students and among students — influence students' perceptions of the learning environment, their motivation to achieve, and their achievement.

How instructional management strategies, standards-based assessment, and educational technology fit into reforms are the basis for three articles on the technical domain. Researcher Fran Mayeski notes that, compared to the 1970s and 1980s reforms that focused on the school level, current education reforms focus on the learner. "Researchers are focusing on increasing their understanding of behavior rather than on expanding ways to control it," she observes.

The policies and management structures of education systems and how organizations change and develop are topics of two organizational domain articles. In one, J. Timothy Waters and Franklin D. Cordell detail seven "projects" that education leaders must undertake to advance reforms, such as developing a management system focused on continuous improvement.

To Order

What's Noteworthy on Learners, Learning, and Schooling is available from the Mid-continent Regional Educational Laboratory, 2550 S. Parker Rd., Suite 500, Aurora, CO 80014 (cite order no. ML-696-RD, 64 pages, $5 prepaid). It is also accessible on the Internet via McREL's web site at http://www.mcrel.org/products/noteworthy.

education reform

Restructuring Enables Educators to Meet Needs of English Language Learners

How can a school improve its program for students who don't speak English, let alone any common language?

The Glassbrook Elementary school in California succeeded by implementing several complementary reforms. Glassbrook's efforts are among those of several schools documented in a new publication by WestEd. Full of restructuring strategies and issues, the publication by Jorge A. Cuevas and Rose Marie García Fontana is third in WestEd's series on restructuring schools.

Fifty percent of students attending Glassbrook are learning English as a second language. While most of these students speak Spanish as their primary language, almost one-quarter speak other languages, such as Vietnamese and Farsi.

To teach language arts and reading, Glassbrook teachers group students who speak the same language together according to their English language ability. This allows teachers to maximize learning time since they can target lessons to meet the needs of each group, write the authors. For other subjects, teachers group students heterogeneously.

Glassbrook also revised its schedule away from traditional, shorter class periods to allow for longer, uninterrupted time blocks to facilitate deeper learning, the authors continue. In addition, a multicultural curriculum assures students that the school respects their cultures and helps students understand each other's cultures.

Although Glassbrook has made great strides to meet the needs of its English language learners, significant challenges remain. Materials in languages other than Spanish are scarce, as are staff who speak these languages. The authors suggest that the school, and others facing similar obstacles, find funds to support local development of materials in other languages and recruit older students who speak English and the native language to assist in instruction.

To Order

A View from the Bottom Up: School-Based Systemic Reform in California, Volume III is available from WestEd, 730 Harrison St., San Francisco, CA 94107-1242 (cite order no. SAR-95-03-RD, 56 pages, $7 prepaid).

---

learning English

Non-native students in American schools face challenges unknown to native-born students. Thoughtfulness and flexibility in programs — and teachers — create conditions more conducive to helping these students master English.

ESL Teachers Need to Provide More Context for Students' Language Learning

Results of a survey of English-as-a-Second-Language (ESL) teachers reveal that many of them teach their students English without helping them understand the academic function of the language. Such an approach can impede students' progress in learning how to speak and understand English.

Researchers find that students who are not fluent in English make sense of "conversational English" — the English they encounter in everyday life — using contextual clues, such as body language, speech intonation, and sequence of events. "Academic English" — the formal English that teachers stress in the classroom — tends not to provide students with such contexts.

"Academic language is most difficult for language minority students when they are required to carry out ... demanding tasks in context-reduced situations," summarize researchers Jeff Solomon and Nancy Rhodes in a report by the National Center for Research on Cultural Diversity and Second Language Learning.

To make matters worse, in mathematics classes, students may be confused by vocabulary words that have specific mathematics meanings, such as "square" or "power." Language features, such as passive voice, are also hard to master without context.

Despite these potential difficulties, a majority of ESL teachers surveyed reported focusing only on discrete, isolated aspects of language that students need for a particular lesson, such as a textbook story or a mathematics lesson.

"The teachers [surveyed] view academic language from a practical perspective — the language students need to understand the lesson or unit being studied," the researchers find. "The teachers make little reference to broader levels of language use" that could really help students master English.

To Order

Conceptualizing Academic Language is available from the National Center for Research on Cultural Diversity and Second Language Learning, Dissemination Coordinator, Center for Applied Linguistics, 1118 22nd St., NW, Washington, DC 20037 (cite order no. EPR-15, 12 pages, $4 prepaid).

learning English

Audiotapes Help Second-Language Learners Improve Oral Reading Skills

If the experience of five first graders is indicative, audiotaped books could be a boon to teachers who teach reading to non-native students.

Although the students spoke native languages as diverse as Vietnamese, Arabic, Russian, and Spanish, all five had one thing in common: difficulty reading in English. Their teacher tested two distinct methods to help them practice reading English language books.

First, students reread at home books that they had already read in the classroom. A few weeks later, the students took home other books they had previously read in class, along with tape recorders and audiotapes of those stories. This allowed students to hear the stories and follow along in the text.

Compared to the minimal skills they gained by rereading the books without the audiotapes, "all five participating second-language learners received a substantial benefit from the opportunity to practice reading books with audiotapes at home," finds a report by the National Reading Research Center. The report was written by Irene H. Blum, Patricia S. Koskinen, Nancy Tennant, E. Marie Parker, Mary Straub, and Christine Curry.

The authors note that after reading along with the audiotapes, students improved their reading skills in many ways. Students read aloud more smoothly, naturally, and accurately. They also monitored their oral reading skills, correcting errors they made while reading aloud. After using the audiotapes, students were more enthusiastic about reading and being read to. Teachers and parents noted that students became more "involved" with the books and did more leisure reading.

To Order

Using Audiotaped Books to Extend Classroom Literacy Instruction into the Homes of Second-Language Learners is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite Instructional Resource No. 10, 25 pages, $4 prepaid; make checks payable to "NRRC/UGARF").

---

effective practices

With so much talk about what's wrong with our schools, it is important to highlight what's right. Insightful practices, creative lesson plans, more progressive programs, and so much more offer teachers and schools the opportunity to enhance their instructional practices.

Thoughtful Teachers, Thoughtful Schools Are Key to Improving Learning

"How can I get my students to really learn what I am trying to teach them?" It's a question that many teachers ask. The answer has more to do with purpose — "what we are trying to do" — than with anything else, according to a book by the ERIC Clearinghouse on Rural Education and Small Schools, titled *Local Schools of Thought: A Search for Purpose in Rural Education*.

Teachers and administrators get the impression that effective teaching depends on particular techniques or methods used to transmit information. Often these methods are built into products waiting for customers, as if simply making the right purchase is the first step toward educational improvement, assert researchers Clark D. Webb, Larry K. Shumway, and R. Wayne Shute.

"Those using this perspective are searching for ways to *indoctrinate* learners, not to provoke learning," the researchers contend. Most people can see the logical misstep here, if they think about it. Too often, however, such reflection does not occur in the day-to-day hubbub of schooling, they add.

Instead of conducting an endless search for ready-made products to solve problems, schools need to become more thoughtful places — places where thinking and caring go hand-in-hand. Thoughtful teachers carefully choose the approaches that best provide students with opportunities to make sense of the information presented, rather than "give" students the meaning, explain the authors.

Reflective practice is as necessary in rural schools as in urban schools. In putting reflective practice into a rural context, *Local Schools of Thought* considers key ideas and tells the story of one rural teacher's effort to become more thoughtful in order to help students get more out of their classes.

To Order

Local Schools of Thought: A Search for Purpose in Rural Education is available from the ERIC Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325 (cite order no. AL 796-RD, 76 pages, $12 prepaid).

BEST COPY A

Everyday Environment Contains Array of Meaningful Lessons for Students

The everyday environment is a resource-rich classroom for students. Even a trip to the local shopping center can be educational. Students can practice their skills in estimating how fast people walk. They can learn about human behavior and psychology by observing where people prefer to sit, how long they sit, and what they do while they're sitting. Or they can examine how a shopping center functions, investigating to what extent store displays influence shoppers' purchases.

In a book published by the ERIC Clearinghouse on Rural Education and Small Schools, outdoor educator Clifford E. Knapp describes twelve "experiential" learning projects on themes such as community planning, pollution, and fast-food fact finding. The projects offer creative approaches to reinforce skills students learn in the classroom in subjects that range from mathematics and science to psychology and social studies. Teachers may implement these programs as described or adapt them to fit their needs.

For each project, Knapp discusses the theme, the outcomes expected of students, the activities teachers can use, questions that help students reflect about what they've learned, and performance assessments to find out what students have learned.

Knapp notes that experiential learning is compatible with excellent teaching strategies. It lets teachers easily combine several disciplines into a lesson, and students use hands-on activities to develop problem-solving skills. What's more, experiential learning is fun. "If students have positive feelings associated with their learning, they are more likely to acquire additional knowledge about that topic in the future," Knapp maintains.

Not every project lends itself to experiential learning. "The teacher and students must know why they are leaving the classroom ... [and] should be confident that a particular field trip or school site activity is the best way to achieve the objectives," asserts Knapp.

To Order

Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning is available from ERIC Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325 (107 pages, $12 prepaid).

Progressively Intensive Activities Are Key to Better Job-Training Programs

Researcher W. Norton Grubb's vision for improved job-training programs centers on creating a coordinated series of increasingly intensive education and training activities.

Writing for the National Center for Research in Vocational Education, Grubb notes that job-training programs currently yield only marginally positive outcomes. Graduates' slightly higher earnings are not enough to lift them out of poverty or off welfare, and outcomes for youth are even less impressive, and often negative.

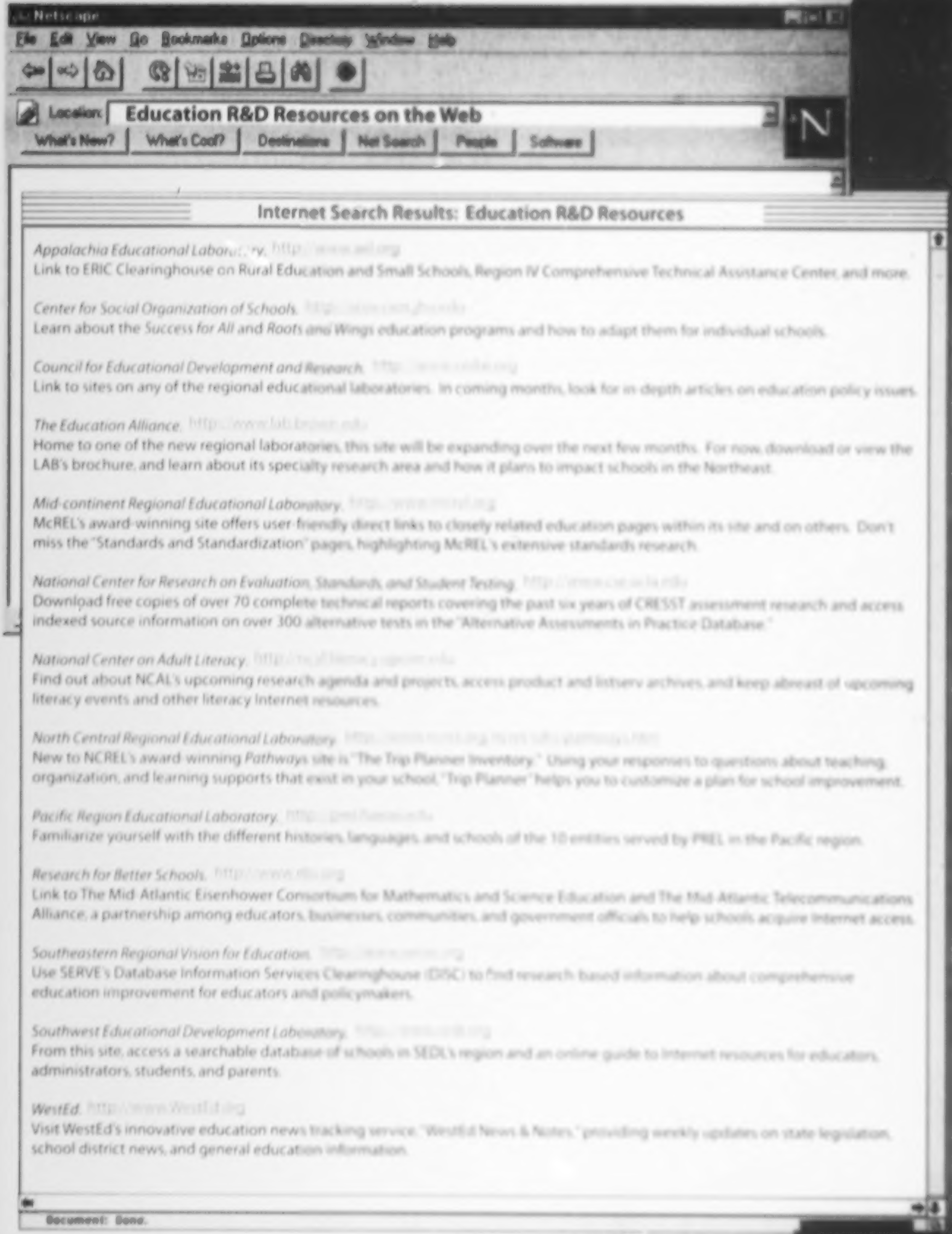
Among the reasons for these modest effects is that programs often focus on helping students get jobs quickly. "The emphasis on quick placement and employment ... reinforces the notion that job training should be a short, one-shot event," finds Grubb. The superficial nature of the programs means that graduates can only obtain unskilled or semi-skilled work that does not pay well and has little promise for advancement.

Grubb says that improving job-training programs requires more than expanding the scope of programs. "The real problem with existing job-training programs is not that an individual component here or there is not of adequate quality, but that the offerings of the 'system' as a whole consist of a welter of different services ... all of them poorly coordinated, with individual programs of limited intensity not linked to other opportunities," he charges.

Grubb recommends that job-training programs be connected to other programs, particularly to certificate and associate degree programs in community colleges, to create "ladders" of sequential education and training activities. In such a series, "individuals can progress from relatively low levels of skill to higher levels of skill and to more demanding, better paid, and more stable occupations," Grubb points out.

To Order

Evaluating Job-Training Programs in the United States: Evidence and Explanations is available from the National Center for Research in Vocational Education, Materials Distribution Service, Western Illinois University, 46 Horrabin Hall, Macomb, IL 61455 (cite order no. MDS-1047, 153 pages, $12 prepaid).


Netscape
File Edit View Go Bookmarks Options Directory Window Help
Location: Education R&D Resources on the Web
What's New? What's Cool? Destinations Net Search People Software
N
Document: Done.

Internet Search Results: Education R&D Resources

Appalachia Educational Laboratory. http://www.ael.org
Link to ERIC Clearinghouse on Rural Education and Small Schools, Region IV Comprehensive Technical Assistance Center, and more.

Center for Social Organization of Schools. http://www.csos.jhu.edu
Learn about the *Success for All* and *Roots and Wings* education programs and how to adapt them for individual schools.

Council for Educational Development and Research. http://www.cedar.org
Link to sites on any of the regional educational laboratories. In coming months, look for in-depth articles on education policy issues.

The Education Alliance. http://www.lab.brown.edu
Home to one of the new regional laboratories, this site will be expanding over the next few months. For now, download or view the LAB's brochure, and learn about its specialty research area and how it plans to impact schools in the Northeast.

Mid-continent Regional Educational Laboratory. http://www.mcrel.org
McREL's award-winning site offers user-friendly direct links to closely related education pages within its site and on others. Don't miss the "Standards and Standardization" pages, highlighting McREL's extensive standards research.

National Center for Research on Evaluation, Standards, and Student Testing. http://www.cse.ucla.edu
Download free copies of over 70 complete technical reports covering the past six years of CRESST assessment research and access indexed source information on over 300 alternative tests in the "Alternative Assessments in Practice Database."

National Center on Adult Literacy. http://ncal.literacy.upenn.edu
Find out about NCAL's upcoming research agenda and projects, access product and listserv archives, and keep abreast of upcoming literacy events and other literacy Internet resources.

North Central Regional Educational Laboratory. http://www.ncrel.org/ncrel/sdrs/pathways.htm
New to NCREL's award-winning *Pathways* site is "The Trip Planner Inventory." Using your responses to questions about teaching, organization, and learning supports that exist in your school, "Trip Planner" helps you to customize a plan for school improvement.

Pacific Region Educational Laboratory. http://prel.hawaii.edu
Familiarize yourself with the different histories, languages, and schools of the 10 entities served by PREL in the Pacific region.

Research for Better Schools. http://www.rbs.org
Link to The Mid-Atlantic Eisenhower Consortium for Mathematics and Science Education and The Mid-Atlantic Telecommunications Alliance, a partnership among educators, businesses, communities, and government officials to help schools acquire Internet access.

Southeastern Regional Vision for Education. http://www.serve.org
Use SERVE's Database Information Services Clearinghouse (DISC) to find research-based information about comprehensive education improvement for educators and policymakers.

Southwest Educational Development Laboratory. http://www.sedl.org
From this site, access a searchable database of schools in SEDL's region and an online guide to Internet resources for educators, administrators, students, and parents.

WestEd. http://www.WestEd.org
Visit WestEd's innovative education news tracking service, "WestEd News & Notes," providing weekly updates on state legislation, school district news, and general education information.

BEST COPY AVAIL

Seeking Universal Input

<continued from page 2>

While schools were out this summer, the debate gathered steam. As you come back into your classrooms for the new school year, reflect on what your students could do if your school had affordable access to the distance learning opportunities that offer new courses and ideas your schools cannot now afford. Imagine tapping into programs on the Internet that could help you to individualize lessons to meet the diverse needs of students in your classroom. Think what it would be like to share ideas via computer with other teachers who face the same instructional puzzles that you do.

Right now the costs of doing these things in most schools across the nation are prohibitive, leaving many teachers and students without the learning tool that promises the most dramatic improvements to our education system in this century. The Congressional Research Service, a research arm of the U.S. Congress, estimates that each year the costs of connectivity equal, on average, 20 percent of the initial investment in hardware! Obviously the majority of the nation's 120,000 schools cannot afford this price. And it is this price that Congress decided must be lowered on all special services that schools need to support the learning and teaching processes.

Already, national data on incomes show that people at every education level fetch higher salaries if they possess competent computer and technology skills. Integrating technology into our classrooms so that it becomes a tool as commonplace as the pencil is a legacy that the telecommunications law has promised to our nation's students. Making this promise a reality, however, will take some effort from educators who must make their needs known to the FCC and especially to their state PUCs this fall.

To learn more about Section 504(h), consider contacting your professional organizations. They most likely are already engaged in this issue and can provide you with information about how to contact your state PUC to participate in the FCC deliberations.

R&D Watch
A review of education research and development findings.

volume 1 • number 3
August 1996

Jessica Kennedy
editor

Diane S. Michel
contributing writer

R&D Watch is published by your regional educational laboratory in cooperation with the Council for Educational Development and Research.

Dena G. Stoner,
executive director

Funding for the R&D reported in this publication is provided, in part, by the U.S. Congress and administered by the Office of Educational Research and Improvement, U.S. Department of Education.

CED R
2000 L Street, NW • Suite 601
Washington DC 20036

Non Profit Org.
U.S. POSTAGE
PAID
CEDaR

Low-Cost Books and FREE Resources on **Outdoor and Experiential Education**

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

___ ***Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning***, Clifford E. Knapp, 1996, 108 pages, soft cover, ISBN 1-880785-15-3, $12.00.

Much academic learning can take place in students' everyday environments. For example, a local shopping mall can be the site for learning a great deal about human behavior; exploring a cemetery can be like reading a book. To help teachers turn these themes and 10 others into meaningful interdisciplinary learning experiences, Knapp has developed organizing problems, background information, outcomes, more than 200 ideas for activities (labeled with the academic subjects to be learned), reflection questions, and performance assessments. The activities are geared for students in grades four through nine, but could be adapted easily for lower or higher grade levels.

___ ***In Our Own Words: Community Story Traditions to Prevent and Heal Substance Abuse***, Michael Tierney, 1992, 60 pages, soft cover, ISBN 1-880785-03-X, ~~$10.00~~, now $7.50.

Written for youth leaders and teachers, this book explains how to help teens conduct their own participatory research, cultural journalism, and experiential writing. All three of these techniques belong to traditions that help people understand the relationship between an individual life and the larger human experience, thus connecting youth to their communities. "The real war on drugs is won . . . when people can look to their culture not only for the roots of their problems, but for the strengths, values, and traditions upon which to build new lives," says Michael Tierney, writing from nearly 20 years of experience in working with youth in rural West Virginia and elsewhere.

___ ***Lasting Lessons: A Teacher's Guide to Reflecting on Experience***, Clifford E. Knapp, 1992, 117 pages, soft cover, ISBN 1-880785-06-4, $12.00.

Are you convinced that youngsters learn best when making, doing, or discovering things themselves? Unsure about how to turn such experiences into meaningful lessons? This guidebook will help. It deals with the theory and practice of reflecting upon experience. Knapp, a 30-year veteran of the classroom, uses examples from outdoor education to illustrate the main ideas. However, the principles and techniques can be applied in almost any instructional setting. Knapp briefly describes cognitive theory and its connection to knowledge, thinking, experience, learning, and transfer. He also provides practical guidance in planning reflection sessions and improving facilitation skills. Also included are listings of helpful organizations and resources for learning more.

Free Digests from ERIC/CRESS on Outdoor and Experiential Education

Digests are two-page (1,500-word) summaries of the education literature on a specific topic, including a reference list of about 10 good sources of more in-depth information. Digests are brief, informative, easy to read, and free.

___ ***Changing Schools Through Experiential Education***. P. W. Stevens & A. Richards (1992), EDO-RC-91-13

___ ***Improving Evaluation in Experiential Education***. B. Hendricks (1994), EDO-RC-94-8

___ ***Outdoor Education and Troubled Youth***. D. S. Berman & J. Davis-Berman (1995), EDO-RC-95-5

___ ***Outdoor Education Directory: Organizations Involved in Outdoor Experiential Education*** (1993)

___ ***Recommended Competencies for Outdoor Educators***. M. Richardson & D. Simmons (1996), EDO-RC-96-2

___ ***Thinking in Outdoor Inquiry***. C. E. Knapp (1992), EDO-RC-92-3

Application for Mathematics/Science Standards Workshop

Eisenhower Regional Consortium for Mathematics and Science Education at AEL

See related story on page L-5 of The Link.

Today's Date: ______________

Administrator making the request: ______________ Title: ______________

School name and address: ______________

____

County in which school is located: ______________ Phone: ______________

Requested topic: ☐ mathematics ☐ science ☐ both

Preferred date of training (give 1st, 2nd, and 3rd choices):

1. ______________ 2. ______________ 3. ______________

Approximate number of participants (**a minimum of 15 required**):

______ elementary ______ middle ______ secondary ______ total

Preferred duration for workshop: ☐ 3 hours ☐ 6 hours ☐ WWW or e-mail application

Send application to AEL, Math/Science Consortium, P.O. Box 1348, Charleston, WV 25325-1348, or Fax to 304/347-0489

Have a suggestion?

Write it here—we value your ideas!

Please use this space to tell us what you especially like about *The Link*, topics you'd like to see covered, how our publication could better serve your needs, etc.

We're also interested in knowing how you use the information found in both *The Link* and *R&D Watch*.

Need Help in the High-Tech World?

Specialized help in technology is now being offered to schools in the Region through a new consortium at AEL—Southeast and Islands Regional Technology in Education Consortium (SEIR◊TEC)—operated collaboratively with several other organizations.

One service the consortium provides is response to telephone or e-mail requests about technology or its integration with instruction. In addition, SEIR◊TEC maintains—on AEL's Home Page (http://www.ael.org)—an extensive On-line Resources section organized by subject matter and grade level.

SEIR◊TEC currently has a number of projects underway throughout the Region. In West Virginia, AEL staff are teaching hypertext classes for K-12 teachers at Cabell Midland High School in Cabell County and Robert C. Byrd High School in Harrison County. In Kentucky, AEL is collaborating with the state department of education to host e-mail training for teachers throughout the state.

Across the Region, at least one school per state has been identified to receive intensive technical assistance and training in instructional technology. Schools involved in the project will learn about innovations such as how to create their own Web pages and intranets. Intranets are information databases accessible to local area networks. They allow children to explore select information from Web sites without giving them access to the Internet.

In Virginia, three sites have been chosen for assistance: Prince Edward Middle School, Halifax County Middle School, and Central Middle School in Charlotte Courthouse. In Tennessee, staff will be working with East Side Elementary School in Haywood County. The West Virginia site is Switchback Elementary School in McDowell County, and the Kentucky school will be chosen from the Kentucky Highland Empowerment Zone.

Remember, if you have questions about technical issues or the integration of technology and instruction, telephone (800/624-9120) or e-mail your requests to Kathryn Hilts (hiltsk@ael.org) or Fernando Ibanez (ibanezf@ael.org).

Free Workshops Help Teachers Align Classroom Instruction with National Standards in Mathematics and Science

Workshops on standards-based teaching in mathematics and science are available at no cost to K-12 teachers in AEL's four states—a service provided by the Eisenhower Regional Consortium for Mathematics and Science Education.

The workshops not only address national standards in mathematics and science, but are tailored to focus on each state's standards as well. Featuring hands-on activities, cooperative learning, and reflective discussions, the workshops were developed by teams of teachers, state department representatives, and professional development experts. Teachers in each state have been trained to conduct the workshops at the local level.

The workshops help participants:

- gain a better understanding of the content of the national and state standards for mathematics and science,
- learn to implement the national and state standards in their curriculum and instruction, and
- learn how to develop classroom activities in mathematics and science that reflect the standards and help improve student performance.

Three- or six-hour workshops may be scheduled at local schools during the school day, after school, on Saturdays, or during the summer for *a minimum of 15 teachers.*

To schedule a workshop, the school principal or district administrator should mail or fax (304/347-0489) the "Application for Mathematics/Science Standards Workshop" (found on page OF-4 of the AEL Order Form). The administrator will be contacted by Consortium staff to schedule the workshop.

FOCUS ON INSTRUCTION

Featuring articles* from teachers in the four AEL states—this issue, Kentucky

Enlivening History in Warren County Schools

Winifred Cohron, Teacher, Bowling Green, KY
with contributions from the Teacher's Curriculum Institute

"The three branches of government under the Constitution are like a stereo." Say what? "The three branches of government are like an amusement park." Well, we may sometimes think that, but really . . .

A similar conversation recently occurred in my eighth-grade U.S. history classroom at Drakes Creek Middle School. The students really weren't being cynical. They were thinking metaphorically and illustrating their thinking with large visuals on posterboard. It was all part of a study of the Constitution using *History Alive!*

History Alive! was developed seven years ago by two high school social studies teachers. Together, they founded the Teacher's Curriculum Institute in Mountain View, California, which currently offers *History Alive!* materials and training. The program has since been adopted by social studies teachers in several districts throughout Kentucky, California, Florida, and Texas.

I learned about *History Alive!* in a workshop at the 1995 Kentucky Council for Social Studies convention. A high school social studies teacher conducted the workshop, and after 30 minutes, I know I had to learn more. I was intrigued, interested, and actually having *fun!* Could this rare and wonderful experience take place in my classroom with 150 semiconscious, eighth-grade students?

Following a two-day training session, I used the materials this past school year with amazing results. Both students and their parents offered unsolicited words of enthusiasm and approval for the new approach.

The program involves six instructional strategies—interactive slide lectures, experiential exercises, skill builders, response groups, problem-solving work groups, and writing for understanding. These strategies fully engage students with the content of six units that comprise the yearlong curriculum.

History Alive! begins with basic information but—based on Jerome Bruner's theory of spiral learning—the complexity of concepts increases as units progress. The program also incorporates Elizabeth Cohen's theory of group work and Howard Gardner's theory of multiple intelligences; both of these emphasize the student as worker. As a Kentucky teacher, I have also found *History Alive!* to be aligned with the goals of the Kentucky Education Reform Act.

Each unit centers on a key question (e.g., Does the Constitution serve the people? or How just was Manifest Destiny?). Each contains lesson plans and activities, an audiotape, slides, placards, overhead transparencies, background information for teachers, and a bibliography. The textbook is still used in my classes, but only as a resource for more information. Students who miss a class miss both a good time and an experience that really can't be duplicated or made up after school or with extra assignments.

This coming school year, Drakes Creek social studies teachers will be implementing the program's seventh-grade world history curriculum as well as the eighth-grade U.S. history curriculum. *History Alive!* also offers curricula and training for high school. Warren County Schools sponsored districtwide training for secondary social studies teachers this summer.

The program requires more time to teach since students become very involved with activities. Also, teachers must develop new evaluation measures since performance assessment is most appropriate for the program. These are small inconveniences, since *History Alive!* has enlivened my students and me. I'm excited about how my students are going to compare, explain, or describe historical events. I'm learning more about my students and their interpretation of events; they, in turn, are learning how to articulate their own experiences with historical interpretation.

History Alive! is the best thing I've come across in 20 years of teaching. It has created the opportunity for students to have experiences that lead them to remember and connect information. So, if you hear some of my students saying "The three branches of government are like a gas station," or something similar, don't be too hard on them. They're making history live!

---

*The appearance of these articles does not imply endorsement of any product by AEL, OERI, or the U.S. Department of Education.

To learn more about *History Alive!* materials or Kentucky trainings—open to teachers from any state—contact the Teacher's Curriculum Institute, Mountain View, CA, phone 800/497-6138 ext. 0, or FAX 415/968-8887.

Winifred Cothron is a teacher at Drakes Creek Middle School, 704 Cypress Wood Way, Bowling Green, KY 42104, 502/843-0165.

Becoming an Advocate for Economic Education

Susan Thomison, Teacher, Bowling Green, KY
with contributions from the National Council on Economic Education

Prime rate? Discount rate? Many students do not understand the basics of scarcity or the principals of supply and demand. Too often they graduate from high school without the knowledge to function in today's economy. To combat this problem, the Kentucky Council on Economic Education (KCEE), a nonprofit organization affiliated with the National Council on Economic Education (NCEE), implemented the Economic Advocate Program. The program trains teachers to use economics curricula in their classrooms.

The National Council, founded in 1949 to train teachers to teach economics, has affiliate councils in most states. The state councils, including those in Kentucky and Virginia, have centers staffed by university faculty who provide training using NCEE student booklets, activities, and teacher resource materials.

To date, the Kentucky council has trained 57 teachers to serve as economic advocates. Advocates attend a weeklong training session to learn about curriculum packages designed for each grade level. Advocates then train teachers in their districts to use the curricula and distribute economic materials. Since advocates are given a yearly allowance for purchasing packages for their districts, schools often receive the materials at no cost. KCEE relies on local funding and grants to train teachers and to purchase curriculum materials. Some advocates are sponsored by businesses in their communities; others are funded through foundation grants.

Many of the training programs are approved for inservice credit by the Kentucky Department of Education because they relate to the goals of the Kentucky Education Reform Act. In addition, the Kentucky Education Television Network broadcasts KCEE workshops to help familiarize teachers with the curriculum packages, and partnerships with local businesses help implement the curricula in school-to-work sites.

Virtual Economics, a CD-ROM containing all NCEE curriculum packages for K-12, is available free to schools nationwide (one per school), regardless of whether teachers attend training. This resource, funded through a grant from the National Science Foundation, also includes other materials. Sample curriculum packages, with suggested grade levels, include: Choices and Changes, K-12; Stock Market Game, 5-12; Master Curriculum Guides, K-12; Zoonific, K-3; Econ & Me, 1-4; Gingerbread Man, 2-5; Community Publishing, 2-5; Econ for Kids, K-8; Partners in Prosperity, 5-9; Eyes on the Economy, 8-12; and Pocketwise, K-4. Paper copies can be ordered from NCEE or state affiliates.

NCEE curricula help make economics fun for students while teaching them basic concepts they will use in adult life. By implementing these curricula in our classes, we can help students understand the role of economics in society and prepare them for the world of work.

For more information, or to order the CD-ROM, contact the National Council on Economic Education, 1140 Avenue of the Americas, New York, NY 10036, 800/338-1192. In Kentucky, call 502/584-2100; in Virginia, call 804/828-1627.

Susan Thomison is a teacher at Warren Central High School, 559 Morgantown Rd., Bowling Green, KY 42101, 502/842-7302.

NOTEWORTHY

ERIC on CD-ROM Affordable

In case you haven't heard, the ERIC database is now available on CD-ROM at a very affordable price. Even if you have access to online searching, you may want to consider owning your own copy, because CD-ROM searching offers far more flexibility and precision in searching a topic. The National Information Services Corporation offers its "NISC Discs" for $25 each, including the archive disc (1966-1979) and the current disc (1980-present), or a yearly subscription that provides quarterly updates of the current disc is $100.

For more information or to order, contact the ERIC Processing and Reference Facility, Computer Sciences Corporation, Systems Engineering Division, 1301 Piccard Drive, Suite 300, Rockville, MD 20850-4305, call 800/799-3742, fax 301/948-3695, or e-mail ericfac@inet.ed.gov.

School District Data Available on Internet

School district profiles are now available at the Internet site http://www.sunspace.com to the general public at no fee. The basic profile is available for each of the approximate 15,000 public school districts. Now, educators can easily answer questions about their school districts, for example:

- What was the 1990 census public school enrollment?
- What percent of children attend private school?
- What is the per capita income of my district?
- How many children live in poverty?
- What is the racial/ethnic distribution of children?
- How many children are "at-risk"?

The *School District Data Book* is a 51-title CD-ROM set developed by MESA under the sponsorship of the U.S. Department of Education. The data are public domain.

For more information, contact Warren Glimpse, 703/979-4700, fax 703/979-4704, or e-mail mesa@sunspace.com.

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Non-Profit Org.
U.S. POSTAGE
PAID
[illegible]

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Bowman

OERI

VELMA MITCHELL
ERIC
PO BOX 1348
CHARLESTON WV 25325

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 15
No. 4
•
September
1996

Project Encourages Girls in Science, Mathematics, and Technology

by Patricia Penn, AEL staff

Once you've experienced a moon landing, you probably have some different ideas about science, math, and technology. You might even have some different ideas about yourself and what you might grow up to be, especially if you're a sixth-grade girl.

The moon landing—simulated, of course—took place at the Challenger Space Center in Wheeling, West Virginia, and was just one of many exciting activities for girls involved in an AEL research project called *Rural and Urban Images: Voices of Girls in Science, Mathematics, and Technology.* Funded by a grant from the National Science Foundation, the experimental project is designed to test interventions to help girls do well and feel confident in the study and practice of science, math, and technology—subjects where they have historically not participated as fully as boys. (See box on page L-2 for more details about the project.) At the conclusion of the project, activities and methods developed and tested during the work will be made available for school districts wanting to undertake similar efforts on their own.

The visit to the Space Center was part of a field trip for the *Voices* girls. During the trip, they piled new experiences one on top of another: the first time to stay in a hotel for many; the first time to see the Festival of Lights at Wheeling's Oglebay Park; the first time to meet their e-mail pals in another county's schools.

Voices girls work together at the Challenger Space Center to perform a three-star space mission and moon landing!

The girls' space mission rated three stars—the best possible score and one achieved by few groups. "It isn't that girls are not as capable as boys, they are," said Patricia Kusimo, principal investigator for the project. "But research has shown that girls' performance in math, science, and technology begins to drop off at about the middle school level."

The *Voices* girls were selected at random from six elementary schools in two West Virginia school districts cosponsoring the project—Kanawha and McDowell. The three-year project completed its first year in June with celebrations at each of the elementary schools. For Years 2 and 3, project activities move to Stonewall Jackson Junior High in Kanawha County, and Northfork and

[*continued on page 2*]

AEL
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

In this issue

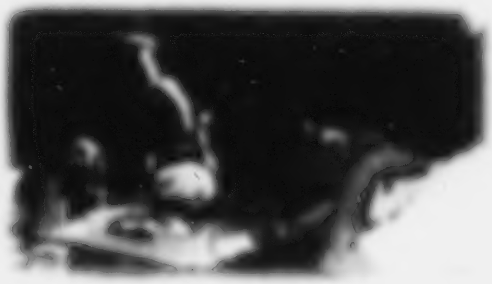
AEL AROUND THE REGION
Project Encourages Girls in Science, Mathematics, and Technology, p. L-1

FOCUS ON INSTRUCTION
Let's Build Bridges—How Our School Turned a Community Event Into an Exciting Study Unit, p. L-4
Family Nights Bring Parents to School, p. L-5

NOTEWORTHY
Tennessee's Block Scheduling Program Shows Early Signs of Success, p. L-6

INSIDE AEL
Booklet Provides Lesson Plans for Using the Microscope in a Standards-Based Curriculum, p. L-7
Egyptian Delegation Visits AEL, p. L-8

KC 021111



Science sometimes can be explored with a microscope or a scale. Voices girls make discoveries through the chemistry of food preservation and folk medicine.

Welch Middle Schools in McDowell County, allowing project staff to work with the same group of girls for the full three years.*

The end-of-year celebration included exhibitions of quilt patterns designed as a practical application of fractions, the chemistry of folk medicine, and the microbiology of food preservation—all subjects of special Saturday workshops for the girls. During the first year, the girls also designed World Wide Web pages for their schools, learned to use e-mail, and explored the Internet.

Carolyn Carter, *Voices* director, observed progress during the first year:

> Even in the first year of the program, we are seeing major, positive changes in the lives of many of the girls, the schools, and the communities that participate. Girls report increased interest in science, mathematics, and technology; a heightened self-esteem and a sense that they really can do anything; and a greater knowledge that the decisions they make now are critical to their futures. Teachers report that the Voices girls are more interested in school and that they try harder and persist longer in their academic tasks. They also report fewer behavior problems. Voices students are becoming valued resources, not only for other students, but for their teachers and families as well.

As part of the project's interest in looking at the effectiveness of various support systems for young girls, each girl in Year 2 will be paired with a mentor—a local professional woman working in a math-, science-, or technology-related career. The pairs will work together on an investigative project, staying in touch by e-mail, as mentors support and share their expertise with the girls. Saturday workshops will continue, where girls will build robots, design

Rural and Urban Images: Voices of Girls in Science, Mathematics, and Technology

Two West Virginia school systems are participating in this three-year project—one rural (McDowell County) and one more urban (Kanawha County). The project addresses three questions relative to science, mathematics, and technology:

1. How effective are support systems in increasing girls' persistence in these areas?
2. Are there differences in effects of interventions in urban and rural settings?
3. How effective in teaching content are materials derived from rural environments?

In the areas of science, mathematics, and technology, the project will:

- develop and test a strategy for building a support network made up of community members, family, and peers to advocate for girls' involvement;
- design materials and strategies to recruit and retain girls;
- conduct an ethnographic study to examine how girls, guardians, and teachers perceive the role of girls; and
- produce one or more documentary films to show social contexts, barriers to participation, and changes that occur when girls are supported and validated in their pursuits.

Partners in the project include the West Virginia affiliates of the American Association of University Women and the Association for Women in Science; the Challenger Learning Center; Concord College; Marshall University; Union Carbide; West Virginia Department of Education; West Virginia State College; West Virginia University; WVU Extension Service; WVU Health, Science and Technology Academy; and West Virginia Institute of Technology.

Voices is funded by a grant from the National Science Foundation. The *Voices* home page address is http://www.ael.org/voices.htm.

---

*Year 1 elementary schools: Chandler, Glenwood, and Tiskelwah in Kanawha County; Kimball, Switchback, and Welch in McDowell County.

BEST COPY AVAILABLE

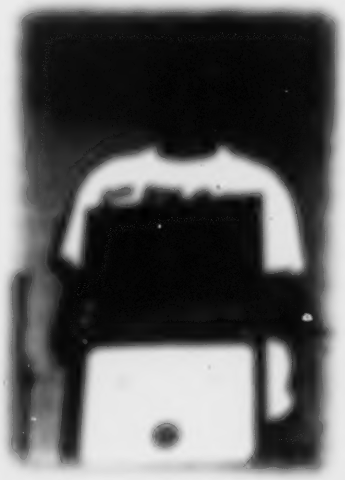
Computer quilting produces pretty patterns, but it takes some skill with an iron to finish the job of making a personal quilt-front tee shirt. This way of using fractions helped Visions girls learn something new about math in every-day life.

and carry out a lifestyle and community health survey, and learn about the physiology of exercise. Also planned are additional field trips and an "Expanding Your Horizons" mini-conference for the girls, their families, and their mentors.

Another support intervention being tested is the use of advocates to support and encourage girls in their exploration and pursuit of competence in science, math, and technology. Every girl in the project has an adult advocate who agreed to serve in that role throughout the three years. Project staff host regular meetings of the advocates—most of whom are parents. At network meetings, advocates have explored the issues underlying the project. In at least one instance, they took an active role in helping their school district provide something important to the girls—pre-algebra and algebra in middle school. "The support of family and friends is crucial in helping the girls persist when it would be easier to give up," says Marian Keyes, coordinator of the advocate network. "They need people not only to cheer them on, but also to run interference for them sometimes."

Since the project's beginning, filmmakers have captured the activities of the Visions girls on film as they engaged in workshops, interviews, and field trips. Filming will continue over the remaining two years. The resulting documentary—along with ethnographic data that are being continuously collected and analyzed—can be used to tell the story of the young women. Also, beginning this year, project staff will begin field-testing in classrooms the materials developed for the activities during Year 1, using teacher feedback to guide revisions.

For more information about the project or the study's findings, telephone or e-mail either Carolyn Carter (carterc@ael.org) or Marian Keyes (keyesm@ael.org) at AEL.



At the end-of-year celebrations, successful Visions participants accepted certificates for their investment of time and effort at Saturday workshops and other activities. They also demonstrated workshop learnings, like this face cream from a [illegible] recipe.

FOCUS ON INSTRUCTION

Featuring stories from teachers in the four AEL states—this issue: Virginia

Let's Build Bridges—How Our School Turned a Community Event Into an Exciting Study Unit

by Alice Barrett, Theodora Eckstrom, and Theodosa Wyatt, Yorktown, VA

We live on a Virginia peninsula where bridges connect us to practically everything—the places we live, work, worship, shop, etc. We have seen fantastic growth on the peninsula, and one side effect of that growth is the volume of traffic that clogs our roads. One such traffic jam occurs right under our window at Yorktown Middle School, where we often see vehicles waiting to cross the Coleman Bridge. This two-lane swing span, built in the fifties, connects us to Gloucester County.

The communities on both sides of the river, after much discussion and research, decided to construct two additional lanes to allow for better traffic flow. However, closing the span would turn a bridge crossing into an 80-mile commute for many people. The architects and engineers decided they could design and build the spans in Norfolk, then float them up the river on barges for the installation. This great engineering feat required that the bridge be closed for only 12 days, rather than the entire construction time.

Even the relatively short 12-day closing had a tremendous impact on our community. One teacher motored across the river each morning on her husband's boat; one parent kayaked to work daily; others rented motel rooms near their work and spent only weekends at home with their families. The local media gave daily updates on the Coleman connection.

All of this focus on the bridge prompted our school to do a complete study unit on bridges. On the day of the closing, we picnicked at Yorktown Park, near the river, where we could observe the installation of the spans. We divided into groups, and chaperones guided their groups through such activities as making observations and classifying data. A favorite was collecting plant and animal life from the shore.

Back at the school, our students created their own unique toll-pass for their "cars" and crossed a footbridge into the assembly room. A representative from the Virginia Department of Transportation was on hand to share the latest "scoop" on Coleman. Upon returning to our individual classes, we read a story about a town split apart by an earthquake. The students had to solve this town's problem by constructing a bridge of straws and paper clips.

For the next three weeks, divisions between subjects and classes were "bridged." One student excitedly told his mom, "We're studying about bridges in all of our classes!" Another student's brother-in-law is a bridge designer. He visited our school and explained the process of constructing a bridge, from conception to completion. He created blueprints, showed slides, and answered many questions—students could see a real engineer at work.

In science classes, the students said, "Forget all the note-taking, let's just build bridges." And that they did—human bridges, beam bridges, arch bridges, and suspension bridges. One of their favorite assignments—to design, draft plans for, and construct a bridge that was strong and yet light in weight—was building bridges from balsa wood. Their evaluations showed great understanding of bridge concepts, and they had fun as well!

Our math classes formed companies, bought supplies, kept ledgers, and constructed bridges from toothpicks. Daily, they diligently worked on constructing their bridges. The math unit closed with a contest to see which company's bridge could hold the most weight. Parents, teachers, and our principal served as judges. Students placed hammers, rocks, and other weights on their toothpick bridges amid shouts of "Oh, no!" and "Add more!"

Social studies classes also "bridged." Each group researched a famous bridge of the world—21 in all. Students saw this activity as a puzzle, and they loved the challenge of putting it together. One of the most notable results was the

---

Alice Barrett, Theodora Eckstrom, and Theodosa Wyatt are teachers at Yorktown Middle School, Yorktown, VA 23690, 804/898-0370. Their unit of study on bridges was supported in part by a grant from the Eisenhower Regional Consortium for Mathematics and Science Education at AEL. For information about grant competitions, please contact the Consortium.

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Please use this form to order materials from AEL.
Check (✓) your **selections**, and complete the shipping information below.

Be sure to remove **all four** pages,
and don't forget to **include payment** for priced items.

The Link Vol. 15, No. 4 • Winter 1996

(fold here)

Shipping Information: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage Required

Daytime phone or e-mail:

____

(in case we have a question about your order)

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

Curriculum Integration

Interdisciplinary Teamed Instruction is a research-based strategy for curriculum integration that focuses on dissolving boundaries between disciplines of knowledge, between students and teachers, and between school and community. AEL offers several capacity-building tools for middle and high school teachers and administrators who wish to know more about curriculum integration:

- Facilitator training,
- Week-long summer institutes,
- Listserve, and
- *Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools* (see next entry).

  Call or e-mail (burnsb@ael.org) Becky Burns at AEL for details about arrangements and costs.

☐ ***Dissolving the Boundaries: Planning for curriculum integration in middle and secondary schools*** (1995) Rebecca Burns

This publication helps secondary school faculties prepare for curriculum integration through a four-step process: (1) exploring the promises and problems of curriculum integration; (2) identifying boundaries, proposing solutions, and recognizing support for integration within schools and communities; (3) reaching consensus; and (4) identifying and attaining supports and resources needed to design and implement an integrated curriculum. The facilitator's guide provides step-by-step directions for activities, transparency masters, and participant handouts for use in a professional development setting. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10; 83 pp.

☐ ***Interdisciplinary units with alternative assessments: A teacher-developed compendium*** (1995) Virginia Education Association-AEL

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of two to five teachers from six Virginia schools received training, developed the units and assessments, and field tested them with their students. Over several months, they shared and revised their work and reflected on teacher change. $12; 141 pp.

☐ ***Just beyond the classroom : Community adventures for interdisciplinary learning*** (1995) Clifford E. Knapp

The outdoor adventures Knapp has designed are organized around themes such as science, math, social studies, language arts, and others. To help teachers turn these adventures into meaningful interdisciplinary learning experiences, he has included background information, possible outcomes, activities, reflection questions, and performance assessments. The activities—more than 200 of them—are geared for students in Grades 4-9, but could be adapted easily for lower or higher grade levels. Knapp explains how this type of interdisciplinary learning relates to historic and current education practice and reform. $12; 108 pp.

☐ ***Linking the disciplines: A holistic approach to curriculum design*** (1994)

Research has shown that the brain is a highly integrated system and that learning is a process of creating networks among its various parts. Integrating disciplines across the curriculum may improve learning by capitalizing on the brain's natural processes. This workshop package—adaptable for single or lultiple sessions—contains everything needed to teach participants how to analyze integrated curriculum models, plan and teach in teams, and design and implement integrated curricula at their schools. $50; 475 pp.

Parent Involvement

Brief articles for parents (1995-1996)

These typeset articles are camera ready for use in your newsletter, newspaper, or periodical. In plain language, each article addresses an education topic of concern to parents. These briefs state what researchers and practitioners have learned about various ways parents can help their children do well in school. Three sets are available, each containing six articles: (free)

☐ 1995 briefs for Latino parents (in Spanish)
___ with English translation

☐ 1996 briefs for parents (general audience, in English)

☐ ***Parents and schools: From visitors to partners*** (1993) Rebecca Burns, Editor

Involving parents in schools is the key to real school reform. This book, part of NEA's Restructuring Series, builds on the experiences of educators and parents who have formed successful school-home partnerships. It includes a review of the research on parent involvement; strategies to initiate and maintain effective two-way communication between home and school; in-depth descriptions of exemplary parent involvement programs; a summary of parent involvement practices found in successful school programs; and a list of resources educators and parents can use to plan, implement, and evaluate partnership efforts. $11.95; 103 pp.

Block Scheduling

☐ ***Block Scheduling. Information Search Package*** (1996)

In recent years, alternative or block scheduling has emerged as a tool for school reform. Rather than shift from subject to subject every 50 minutes, many schools now schedule longer blocks of time to encourage in-depth exploration of complex topics. Flexible scheduling promotes versatility in course design and delivery and supports practices such as team teaching, interdisciplinary teaching, and individualized instruction. This information package contains a variety of current resources on block scheduling and is an excellent reference for educators, policymakers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources. $15; 142 pp.

R&D watch

volume 1 • number 4
September 1996

a review of
education research
and development
findings

Contents:

Trends: *Professionalization and the Public Trust* .... page 2

School Improvement: Worthwhile Strategies for Change

New Leaders for Urban Schools: Building a Community of Learners .... page 3

Focus on School Improvement: A Planning Guide .... page 3

Insights on Education Policy and Practice: Alternative Learning Environments .... page 4

Reading and Literacy: Successful Ideas in Action

What Happens When Students Read Multiple Source Documents in History? .... page 4

Teaching Reading in the Content Areas .... page 5

Developing Engaged Readers in School and Home Communities .... page 5

Special Education: Making "All-inclusive" Learning a Reality

Teacher Perceptions of and Strategies for Inclusion: A Regional Summary of Focus Group Interview Findings .... page 6

All Students, Same Test, Same Standards: What the New Title I Legislation Will Mean for the Educational Assessment of Special Education Students .... page 6

Inclusion/Detracking: A Resource Guide .... page 7

Community and Family Involvement: Collective Efforts to Enhance Student Learning

Effects of Even Start on Family Literacy .... page 7

Community Service/Service Learning: An Implementor's Guide and Resource Manual .... page 8

Toward the 21st Century: A Rural Education Anthology .... page 8

Rural Audio Journal: Families and Schools Together: Establishing and Strengthening the Connections .... page 9

Diversity: Understanding Through the Eyes of Others

Use of Puerto Rican Natural Support Systems as a Bridge Between Community and School .... page 9

Policy/Practice Brief: Beginning Teacher Follow-up in Tennessee: An Overview of Four Cohorts .... page 10

Children of La Frontera .... page 10

R&D Resources .... page 11

R&D Watch
is provided by
AEL
celebrating
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Appalachia Educational Laboratory
PO Box 1348
Charleston, WV 25325-1348
304/347-0400 • 800/624-9120
304/347-0487 Fax
aelinfo@ael.org
http://www.ael.org

BEST COPY AVAILABLE

Professionalization and the Public Trust

Recent polls indicate that Americans rank education as one of their highest priorities. On the face of it, this seems like good news. It isn't. Much of this "high-priority" sentiment is fueled by public discontent with how educators are doing their jobs.

The public has shown little confidence in teachers having the strong knowledge base they need to make decisions that affect student learning. And, as every educator knows the public manifests its opinion by holding back respect and reward for the education profession.

For the public to trust professionals in any field — be it education, law, medicine — it must believe that their judgments are backed up by solid knowledge. Some of this knowledge comes from personal experience, but a great deal of it also stems from robust research and development that constantly informs and updates professional practice.

Knowledge drawn from research doesn't produce quick answers, or even answers guaranteed to work in every circumstance. On the contrary, the primary value of new R&D knowledge is to inform the judgment of professionals so that they can make wise choices in ambiguous situations. Even in medicine, where the R&D base is strong, physicians hesitate to talk about "cures," choosing instead to speak about probabilities. Professional respect comes when wise choices are based on the best interests of the client and use the best knowledge available.

More than most of us realize, the professionalization of teachers and the building of the American public's trust in the teaching profession is absolutely tied to the quality and depth of research in education that develops generalizations and provides information about applications in the classroom — whether that classroom is in a home, a school, or is electronic. Yet, at the federal level, where most of the non-proprietary and public research and development efforts are funded in education and health, education research receives less than half a billion dollars in funding, in comparison to the nearly $12 billion for the National Institutes of Health alone.

In 1994, the U.S. Congress created the National Educational Research Policy and Priorities Board within the Department of Education to plan long-term investment and investigative strategies for the federal R&D program and to update them every two years. The objective of this broadly representative board is to build a foundation for education R&D investments that is as strong and as deep as that which serves the health professions so that teachers, like doctors, can draw their information from a solid, synthesized research base.

Maybe one of the best examples of how investments in education research and development pay off comes from the years of work on reading teaching and learning. Most Americans consider a child's ability to read as the single most important indicator of whether education is effective. Here we provide a sample of how R&D-based knowledge can inform educators' decisions.

- Whole language or phonics? As every educator knows, the pendulum has swung in both directions in this lively debate over

<continued on page 12>

school improvement

Improvement takes effort and a willingness to try new approaches. In education, implementing well-researched ideas for change pays off for schools, teachers, and students.

Teachers Share Problem Solving in Communally Organized Schools

Educators have heard it before: Practices such as interdisciplinary team teaching, heterogeneous ability grouping, and cooperative learning can improve student achievement and teacher satisfaction. However, a publication by the North Central Regional Educational Laboratory warns that merely implementing these practices won't guarantee positive outcomes. What matters is how schools frame the practices.

"The change process," says researcher Anne Turnbaugh Lockwood, "is too complicated for these restructuring practices to serve as a simplistic list or blueprint for schools to follow." Communally organized schools — with educators sharing responsibility for fostering positive outcomes — naturally adopt such practices wholeheartedly.

More than just a fuzzy concept, communally organized schools are schools that don't have bureaucratic rules and procedures. School staff agree on the purpose of the school and work collaboratively across disciplines to achieve that purpose.

The principal of a communally organized school, continues Lockwood, "sees the leadership potential in teachers" and understands that staff development nurtures such leadership. Schools that are organized to promote teacher decisionmaking, teacher collaboration, and curricular improvement cultivate teachers who seek continuous learning and choose to become involved on committees. Staff members care about students and willingly examine practices that help students learn.

"As [educators] tell us, first forming a community of learners and then inhabiting it with advanced problem-solving abilities and thoughtfulness has meant they think differently about their roles as educators and about the students and families that they serve," explains Lockwood.

To illustrate how communally organized schools function, Lockwood profiles three schools, explaining their philosophies and operating methods, including how they make consensual decisions.

To Order

New Leaders for Urban Schools: Building a Community of Learners is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. UNL-1-95-RD, 19 pages, $9.95 prepaid).

Educators Learn Reflective Process to Improve School's Educational Program

For educators interested in improving their school's educational program and enhancing student learning, a guide by WestEd provides a framework for thoughtful, reflective planning. The guide discusses seven parts of the planning process:

- Plan to Plan: Educators lay the groundwork by understanding the need for improvement, establishing a school improvement leadership team, and building enthusiasm for the process.
- Assess the Situation: A comprehensive assessment of the school, community, and students lets educators develop a profile that highlights both needs and strengths on which to build. "A good needs assessment requires that team members consider multiple sources and types of information that supply many different types of data on the school and its students," the guide explains.
- Build a Knowledge Base: In order to make informed decisions about addressing needs, educators next gather current information on effective strategies, practices, and programs in areas such as program design, curriculum, instruction, and evaluation.
- Develop a Plan: Defining a vision, identifying current and potential barriers, specifying strategies to implement the plan, and reviewing and refining the approach all help educators through this difficult step.
- Implement the Plan: Implementation may not follow naturally from plan development. Offering teachers professional development and generating staff support helps.
- Monitor: Monitoring planned changes, activities, and anticipated outcomes are essential. "It is through monitoring processes that areas for change become evident before full implementation or too much time has passed," according to the guide.
- Evaluate: At the end of a program year or some other period of time, educators must determine if they did what they set out to do, using both formal and informal assessments.

To Order

Focus on School Improvement: A Planning Guide is available from WestEd, 730 Harrison St., San Francisco, CA 94107-1242 (cite order no. TAC-95-01-RD, 72 pages, $10 prepaid).

BEST COPY AVAIL

school
improvement

Alternative Education Can Inform School Improvement for All Students

Alternative education programs — programs that target students most at risk of failure in school — can help students succeed academically, behaviorally, and emotionally if they are implemented well. Because effective alternative schools share many features with exemplary schools, they can be models of productive learning environments for all students. Education decisionmakers, however, need to consider their goals for alternative education and be mindful of how it fits into the overall education system.

Alternative schools tend to be small and autonomous, link school work with experiential learning, and offer a range of health and other human services. Such features promote curricular and instructional innovation as well as caring, mentoring relationships among teachers and students that can enhance student achievement. "Good" alternative education programs strive to be flexible and meet students' needs, rather than design a program to be strictly followed.

Given that alternative education has led to student success under certain conditions, many education policymakers have mandated school districts to provide alternative education settings. "The effects of mandates, however, remain unclear," writes researcher Stacey Rosenkrantz Aronson, because research has been conducted only on programs established and attended by choice.

"In addition to the choice factor, policymakers must consider funding issues when mandating programs," Aronson points out. "If states provide additional funds for alternative education, it is possible that districts will identify more students at risk. If states do not provide sufficient funds, mandates may negatively affect both alternative programs and traditional schools."

Finally, if education decisionmakers adopt an alternative education strategy, they must realize that creation of a separate system for some students will have impacts on the rest of the system. "It may be wiser and more effective to reduce the number of students whom the system is failing, rather than create a separate system for only a few of them," Aronson suggests.

To Order

Insights on Education Policy and Practice: Alternative Learning Environments is available from the Southwest Educational Development Laboratory, 211 E. Seventh St., Austin, TX 78701 (use order no. SD 896 RED; 11 pages; $6 prepaid).

reading
and literacy

[illegible]

Students Benefit from Additional Instruction When Using Source Documents

Although many education reformers have suggested that students use a variety of non-textbook "source" documents to learn about history, students may not benefit unless they are taught how to use these sources.

Advocates say that using a variety of resources allows students to construct a sophisticated understanding of historical events. However, creating such an understanding requires that students compare and contrast documents *and* consider that both the source of the document and the general mood of the time may have influenced its content. These processes mimic how historians approach texts, explains a publication by the National Reading Research Center.

A research team led by Steven A. Stahl observed advanced placement students as they described or stated their opinions about the Tonkin Gulf Resolution. Students could choose from several sources, such as newspaper articles, eyewitness accounts, and U.S. Senate hearings, that offered both pro-war and anti-war interpretations of the event.

Instead of gaining a complex understanding of the confusion surrounding the Gulf of Tonkin incident, many students read one or two sources, formed a theory, and then looked for evidence from other texts that supported their theories. They often ignored contradictory information. Moreover, the researchers found, students didn't consider the biases inherent in the texts.

"[Students must] be taught what it means to 'think like a historian,'" conclude the authors. "Without this teaching, they will be less able to engage in historical analysis."

To Order

What Happens When Students Read Multiple Source Documents in History? is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (use Research Report no. 45; 48 pages; $4 prepaid; make checks payable to "NRRC (UGARF)").

Strategies Help Content-Area Teachers Assume Role in Reading Instruction

"Our society is becoming increasingly aliterate: people who know how to read but don't choose to read," warns educator and author Rachel Billmeyer. "The reading problem results not only from disinterest in reading but also from increasing numbers of students with poor reading skills."

Reversing these trends requires enhancing reading instruction in all subject areas, not just in reading classes where skills are isolated from the bulk of students' classwork, Billmeyer asserts in her teachers' manual on teaching reading in the content areas.

Commissioned by the Mid-continent Regional Educational Laboratory, the manual aims to inform all teachers — not just reading teachers — about creating learning environments that nurture the development of effective readers and to answer questions about the cognitive processes involved in reading comprehension. Billmeyer emphasizes that it does not prescribe any one method of teaching, but rather assists teachers in developing a range of teaching strategies.

Using charts and graphics to illustrate her points, Billmeyer examines how the interaction among reader, learning context, and features of the written text determines what meaning the reader derives. One section discusses research findings about how students learn. Particularly helpful to teachers is a section elaborating on 40 effective reading strategies covering vocabulary development, narrative and informational text, and discussion of texts.

"Content-area teachers, as insiders in their field, hold the keys to helping learners understand informational text," Billmeyer says. "When all teachers assume the responsibility of teaching learners how to comprehend text ... then we will be creating a nation of readers who enjoy reading for both pleasure and information."

To Order

Teaching Reading in the Content Areas is available from Sopris West, P.O. Box 1809, Longmont, CO 80502-1809 (for the manual, cite item no. 0RC-MAN, $25; for blackline masters of the visuals in the manual, cite item no. 0RC-BM, $15; prices plus 10% shipping and handling, minimum $3.50 per order). For information on training contact McREL at (303) 337-0990.

Supportive Environments, Pleasure Reading Encourage Students to Read

"Engaged readers are ... motivated, strategic, knowledgeable, and socially interactive," say editors Linda Baker, Peter Afflerbach, and David Reinking of the National Reading Research Center in their book, *Developing Engaged Readers in School and Home Communities*. "When the classroom or home setting is appropriately supportive and inviting, engaged readers are motivated to read, to use prior knowledge, to employ cognitive strategies, and to interact socially as members of a literate community." How to foster such engagement in reading is the book's focus.

What motivates people to read is addressed by researcher Barbara McCombs of the Mid-continent Regional Educational Laboratory. Her chapter examines how motivation is understood within current views of learning and argues that "we have tended to focus on learning, but not on the learner." McCombs presents an integrative framework of will, skill, and social support strategies for promoting motivation and engagement and suggests ways that motivational strategies can be used by teachers, parents, and community members to promote engagement in reading.

To encourage reading for pleasure among students from low-income homes, where little reading for reading's sake occurs, teachers ought to introduce the joys of reading in class, assert numerous contributors to the book. "We believe that if children from culturally diverse backgrounds ... are to develop into engaged readers, they must be shown how reading beyond required text adds to the fullness of their lives and enhances opportunities for achieving personal goals," state researchers Ruby Thompson, Gloria Mixon, and Robert Serpell.

Other chapters of the book discuss elements of successful parent involvement programs, curricula, instruction, and assessments that promote reading engagement, and reports of teacher research.

To Order

Developing Engaged Readers in School and Home Communities is available from Lawrence Erlbaum Associates, Inc., 10 Industrial Ave., Mahwah, NJ 07430; (800) 926-6579 (cite order no. 0-8058-1974-2; 387 pages; $29.95 (paper) plus $3 handling, prepaid).

special education

Students with disabilities — both physical and cognitive — must overcome many obstacles to receive the education services that they need. For schools and teachers, too, it can be a struggle to meet the needs of these students while not jeopardizing the needs of non-disabled students. Those who have met with success share their insights and approaches for the benefit of others.

Teachers Offer Suggestions, Effective Solutions For Inclusion Concerns

Teachers share more than 100 strategies effective for inclusion in a collection of essays published by the Appalachia Educational Laboratory. AEL culled the responses from 144 teachers — in Kentucky, Tennessee, Virginia, and West Virginia — who had experience in inclusion classrooms.

The strategies are the highlight of the findings from focus group interviews aimed at identifying teacher concerns *and* providing solutions. According to participants, today's regular education teachers may not feel adequately prepared to assist students with disabilities and may have classroom management concerns related to integrating special education and regular education students.

While most of the 100 suggested strategies focus on modifications in curriculum and instruction, they also include ideas on creating time for regular and special educators to plan and teach together; changes in student assessment; classroom management plans; and suggestions for strengthening organizational and study skills.

AEL provides both state-specific reports and a regional summary that highlights teacher concerns about and obstacles to implementing inclusion, effects of integrating special education students in regular education classes, suggestions for effective inservice training, and recommendations for preparing teachers for inclusive settings.

In their development and testing of these strategies, these veteran teachers found that they were assisting not only special education students but also marginal learners (students not identified for special education services but who had learning difficulties). Simultaneously, they reinforced learning for the rest of the class. As focus group interview participants frequently stated, the techniques that work best for students with disabilities usually work very well for *all* students.

To Order

Teacher Perceptions of and Strategies for Inclusion: A Regional Summary of Focus Group Interview Findings is available from the Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325 (use order no. AL-896-RD; 140 pages, $15 prepaid).

Meeting Disabled Students' Testing Needs Is Tricky, But Possible

Valid assessments require all students to receive the same opportunity to demonstrate their knowledge and understanding of academic material. But given that standard, how can schools meet the special needs of learning disabled students without altering conditions so much that they jeopardize the validity of the assessment?

One way is to do it on a case-by-case basis, says researcher S.E. Phillips in a policy paper published by the North Central Regional Educational Laboratory.

While accommodating students with physical disabilities generally poses no threat to the validity of test results, that may not be the case in accommodating students with cognitive disabilities, says Phillips. Accommodating these students' disabilities may very often affect the precise skill being assessed, thus giving them an unfair advantage, according to Phillips. For instance, a student's reading test results are meaningless if that student had the test read aloud because of a reading disability.

"Clearly, it is time for test administrators and policymakers to formulate clearer policies and procedures for dealing with [special needs] requests," Phillips states.

While citing legal precedents that "schools do not have to lower standards," Phillips nonetheless encourages school officials to grant requests with regard to assessment whenever invalidation is not a concern.

Additionally, Phillips suggests that test developers remove any unnecessary skills or requirements from assessments. Annotating test results is another way to deal with this problem, so long as there is no violation of privacy in doing so.

To Order

All Students, Same Test, Same Standards: What the New Title I Legislation Will Mean for the Educational Assessment of Special Education Students is available from North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (use order no. RPIC-ASSE-95-RD; 7 pages, $3.95 prepaid).

BEST COPY AVAILABLE

special
education

Information Available on Integrating Voc-Ed, Special-Needs Students

Research findings, legislative mandates, community demands, and reform agendas have all influenced educators to integrate more and more students who were previously isolated in special or vocational classes into regular education classes.

A resource guide for educators offers information about how to teach students in classrooms that have eliminated academic and vocational tracks and in "inclusion" classrooms that integrate disabled and non-disabled students. In all, the guide describes 98 newsletters and journals that provide information on access and equity issues, program administration, professional development, curriculum and instruction, comprehensive support services, and other topics.

Published by the National Center for Research in Vocational Education, it lists education information centers and organizations, curriculum centers, state change projects on integrating vocational and academic education, state government employees who can assist educators in their mission, and exemplary programs.

Among the exemplary programs described by authors Carolyn Maddy-Bernstein, Zipura Burac Matias, Esmeralda S. Cunanan, Becky Taylor Krall, Janet Kantenberger, and Linda Iliff are:

- The ERIC/OSEP special project, which disseminates information about special education research;
- Pierce County, Washington's Vocational/Special Education Cooperative, which prepares high school students with mild disabilities for work and/or postsecondary vocational training; and
- Skills and Academics Grant Education, a joint venture between Oklahoma City Schools and the area's Vocational-Technical School District. In place since 1981, the program integrates general and vocational education for high school students at risk of dropping out.

To Order

Inclusion/Detracking: A Resource Guide is available from the National Center for Research in Vocational Education, Materials Distribution Service, Western Illinois University, 46 Horrabin Hall, Macomb, IL 61455 (cite order no. MDS-746, 81 pages, $8.50 prepaid).

community
and family
involvement

Today, as we march towards decentralization, educating our children means looking beyond schools to our communities — our "extended families" — to nurture the development of the whole child. Still, what parents need to do cannot be overlooked.

Even Start Program May Be First Step in Reducing Families' Disadvantage

Parents who participated in the federal Even Start program not only improved their literacy skills, but also made steps toward furthering their education and perhaps escaping poverty, finds Lori Connors Tadros in a report by the Center on Families, Communities, Schools, and Children's Learning.

Even Start provides children at risk of school failure — particularly poor children — with early childhood education and offers their parents adult education and parenting classes. The program targets parents, hoping to improve their low literacy skills so that they can better support their children's burgeoning literacy.

Connors Tadros found that parents who participated in the Even Start program in Frederick County, Maryland, improved their literacy skills proportionate to the amount of time they spent in adult education. Parents who had "intermediate" literacy skills — below high school level — before participating in Even Start made the biggest gains.

But perhaps the most exciting news is that at the end of Even Start's program year, 50 percent of the parents were preparing to take or had received their Graduate Equivalency Diploma. "This is an important accomplishment for the adults and one that most likely will result in their participation in further adult education," says Connors Tadros.

Furthermore, parents who attended adult education developed better ways to support their children's literacy at home. Subsequent to their participation in Even Start, many parents took their children to the library more often and encouraged them to obtain their own library cards.

As a result of Even Start's parenting classes, parents also learned new discipline techniques, practiced more patience with their children, and interacted with them more than before the program.

To Order

Effects of Even Start on Family Literacy is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3505 N. Charles St., Baltimore, MD 21218 (cite report no. 35, 36 pages, $8.50 prepaid).

BEST COPY AVAILABLE

Service Learning Projects Foster Meaningful Education at Low Cost

In this era of tight education funding, educators will be glad to know that it is possible to implement meaningful service learning projects with few or no extra funds, according to a publication by the Appalachia Educational Laboratory (AEL).

The publication reports the findings of a study group cosponsored by the Kentucky Education Association and AEL. The study group consisted of elementary, middle, and high school teachers who are involved in service learning.

More than just community service, service learning projects are integrated into the school curriculum. Teachers may have students write about their service experience, speak publicly about it, or conduct further research into their topic. Among the benefits of service learning is that students, especially those with a history of poor performance, connect what they learn to "real life," and thus, increase their motivation to learn.

Although service learning projects can cost upwards of $100 per student, creative teachers can offset these costs. For example, having students or adult volunteers drive to service projects saves the school transportation costs. Also, some projects are inherently inexpensive — tutoring programs, recycling programs, or volunteering at soup kitchens.

The teachers suggest many service learning initiatives but maintain that all projects should meet some genuine community need. They recommend that students be involved in conducting needs assessments and in planning projects from the start.

The publication also describes four models of service learning, a process for organizing service learning, activities that help students reflect on projects, and recommendations for implementation. It provides contact information for 27 projects underway in Kentucky. The guide links readers to related print and video resources and organizations offering service learning technical assistance.

To Order

Community Service/Service Learning: An Implementer's Guide and Resource Manual is available from the Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325. (Use order no. SL-996-RES; 187 pages; $14 prepaid.)

Rural Schools Ought to Maintain Local Control, Provide for Community Needs

Today's rural communities often struggle to hold on to their traditions and identities. National chains are rapidly replacing "mom and pop" establishments. Many rural residents are driving to jobs in distant towns. Young people are leaving. Meanwhile, rural schools face a national reform agenda pushing for standardization, regulation, accountability, and consolidation.

David Hobbs argues that rural schools need to balance meeting national reform agendas with maintaining local control and reflecting the needs and wishes of the community. "In many rural areas, the school is the centerpiece of community activity and, therefore, crucial to the community's identity," he says in an anthology on rural education published by the North Central Regional Educational Laboratory.

"A school symbolizes community autonomy because it is all that remains of local control in most states," he adds. Providers of educational services ought to work with rural communities to help identify their needs and the best strategies to meet them, says Hobbs.

This may include expanding the mission of the school, suggests Paul Nachtigal, another researcher writing for the anthology. With the reduction in rural jobs, many parents now work far from home, putting them under more stress and giving them less time to spend with their families. Combined with high poverty and underemployment endemic to rural areas, residents of all ages need a variety of social and educational services. Schools are a logical place to provide them.

Because rural communities have few job opportunities, good students tend to leave after high school, giving the communities little return on their investment. Economic development can slow this trend. Schools can play a role in renewing communities — and can teach students valuable skills — by having students write and publish a newspaper, help residents apply for loans, or other such activities.

To Order

Toward the 21st Century: A Rural Education Anthology is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60523-1480. (Use order no. RUR-RA-96-RES; 140 pages; $19.95 prepaid.)

Rituals Such as Singing, Eating, Playing Together Help Family Members Bond

Susan Hennick, a mother in Cedar Rapids, Iowa, was always too tired to play with her three children, two of whom are diagnosed with Attention Deficit Disorder. Not surprisingly, the children were constantly tugging and pulling on her. But the FAST program — Families and Schools Together — taught Susan that giving each child her focused attention for as little as 15 minutes a day calms them and improves the bond between mother and child.

FAST is an eight-week program run by schools to help family members strengthen bonds. It is described in an audiotape narrated by Joe D'Amico and Ed James and produced by the North Central Regional Educational Laboratory. The idea is that better family relationships help children stay in school and avoid drugs, alcohol, and violence.

FAST reconnects families by having them participate in rituals — eating, playing, and singing together — that many families claim to no longer have time for. "FAST tries to do something different," points out program developer Lynn McDonald. "It tries to provide a structure for people to spend time with one another that's positive time and that sustains and rejuvenates their bonds."

During "Special Play," one parent plays with one child for 15 uninterrupted minutes. During that time, the child chooses what to play and directs the activity, and the parent can't teach, judge, or boss the child. Parents interviewed on the audiotape report that during this time, they learn about what's important to their child, things that they wouldn't have learned otherwise.

Many parents describe an added benefit of FAST as getting to know teachers and administrators better — so much better that they would consider asking them for help. When children see their parents friendly and relaxed with educators, they often strengthen relationships with them, too.

To Order

Rural Audio Journal: Families and Schools Together: Establishing and Strengthening the Connections is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60523-1480 (cite order no. RAJ-V3-1-RES, 60 minutes, $9.95 prepaid).

Latino Parents Feel Comfortable Asking Bilingual School Staff for Support

With few friends or relatives nearby to offer support, many Puerto Rican parents living in Boston would comfortably turn to the bilingual elementary school their children attend.

Almost half of the parents interviewed by researchers from the Center on Families, Communities, and Schools said they would turn to the school that specifically serves the Latino population and has a bilingual staff if they needed social support. "The parents' ability to identify with school personnel, the large number of Latino families in the school, accessibility of school, and an 'atmosphere' of acceptance all contributed to positive feelings," find researchers Melvin Delgado and Hilda Rivera.

Delgado and Rivera characterize the Puerto Rican parents they studied as being socially isolated. On average, parents had only one or two people to count on in an emergency, often other family members. The low number likely reflects that these other family members are under great stress themselves and may not have the energy or resources to commit to others, the researchers speculate.

Less than half of the parents interviewed knew their neighbors. Those who did said they would not share personal or family concerns with them. Although many parents were active in their communities' churches, religious institutions generally met the parents' spiritual needs but not their financial, emotional, social, or service needs, the researchers report.

Even more parents would seek support from the school in the future: 92 percent of parents said they felt comfortable visiting the school. Parents also noted that workshops on parenting issues, festivals for families, special services for single parents, and more personal contact would further attract them to the school.

To Order

Use of Puerto Rican Natural Support Systems as a Bridge Between Community and School is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3505 N. Charles St., Baltimore, MD 21218 (cite report no. 34, 38 pages, $8.50 prepaid).

diversity

America's schools face the challenge of educating children who come from many different cultures, speaking in many different languages. Teaching in a culturally diverse classroom means reaching out to and incorporating many different viewpoints.

BEST COPY AVAILABLE

Beginning Teachers Note Weak Training in Accommodating Student Diversity

First-year teachers who attended college preparation programs in Tennessee report that their programs didn't give them enough background in accommodating student diversity or in using computers in instruction. However, they had praise for their training in educational psychology and higher-order thinking.

In 1995, only 41 percent of beginning teachers surveyed said they had strong preparation in dealing with multicultural issues, and only 28 percent believed their training readied them for incorporating cultural diversity into instruction. However low these proportions may be, they have improved since 1992, when 20 percent of beginning teachers reported strong preparation in multicultural issues and 17 percent in incorporating cultural diversity.

As for other diversity issues, 39 percent said they could adapt instruction to address individual differences, 26 percent felt ready to work with special needs students, and 15 percent believed they could teach gifted and talented students well, reports a brief by the Center for Research in Educational Policy.

While a majority of the teachers surveyed felt prepared to teach basic computer knowledge and skills, only 16 percent reported strong training in computer instruction.

"Though there has been considerable emphasis on these [two] areas in recent years, it is not reflected in first-year teachers' ratings of their preparation," comment researchers Carol Etheridge, John A. Nunnery, and Wei-Ping Wang.

Better news is that 66 percent of the teachers surveyed rated their understanding of how children learn as strong and 64 percent were pleased with their background instruction in child and adolescent development. In addition, about 50 percent were comfortable in teaching higher-order thinking skills, find the researchers.

To Order

Policy/Practice Brief: Beginning Teacher Follow-up in Tennessee: An Overview of Four Cohorts is available from the Center for Research in Educational Policy, College of Education, The University of Memphis, Memphis, TN 38152 (cite brief no. 9603; 6 pages; free while supplies last).

Two-Way Bilingual Programs Benefit Mexican Migrant & Immigrant Students

In border cities such as El Paso, Texas, educators know that teaching English to Mexican students is only half the picture. The other half is teaching English-speaking students Spanish. The Accelerated Two-Way Bilingual Program prepares all children to be multilingual. Spanish- and English-speaking students are in the same class; all students learn both languages, reports Margarita Calderón in a book edited by Judith LeBlanc Flores.

The book compiles the writings of 27 teachers and researchers on educating Mexican migrant and immigrant students. The articles cover a vast scope of topics, such as school programs in both Mexico and the United States, existing binational education agreements, and effective practices to use with Mexican students and their families. The book also contains the reflections of migrant students themselves.

In border areas and farther north, the challenge lies in helping educators and community members understand that learning a second language takes time. Until Mexican students learn English, some writers contend, instruction in mathematics, science, and other content areas should continue in Spanish.

Other characteristics of good practice include valuing the students' culture, reaching out to Mexican parents, providing staff development, and adequately assessing language proficiency and academic needs.

Appropriate grade placement is also an issue, especially for migrant students who constantly switch schools. To ensure that these students are properly placed, California's Binational Program, for example, has spearheaded an effort to create transfer documents that contain information on each migrant student's school experiences in the U.S. and Mexico.

To Order

Children of La Frontera is available from ERIC Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325 (cite order no. RC-996-RES; 312 pages; $18 prepaid).

Safe in the Classroom

Appalachia Educational Laboratory

Reducing School Violence: Schools Teaching Peace. This report describes conflict resolution strategies and curricula that teachers can use in the classroom and profiles successful elementary, middle, and high school programs.

Promoting Safe Schools: Information Search Package. This collection of current resources for educators and the public offers reference materials, journal articles, and AEL-produced publications about promoting safe schools. Contact AEL at (304) 347-0400.

ERIC Clearinghouse on Urban Education

Preventing Youth Violence in Urban Schools: An Essay Collection. Essays address strategies for preventing violence and gang activity in schools and the legal rights of students. Contact ERIC at (212) 678-3433.

SouthEastern Regional Vision for Education

Safe Schools: What the Southeast is Doing. This policy brief (Jan., 1996) reports on current trends in youth violence, examines recent safe schools legislation, strategies, and concerns, and provides a list of resources for educators in SERVE's region.

Hot Topics: Usable Research. A research-based series, these publications address timely issues in education and serve as practical guidebooks for educators. Titles include:
- *Reducing School Violence*
- *Children Exposed to Drugs: Meeting Their Needs*

Contact SERVE at (904) 671-6000.

Southwest Educational Development Laboratory

SEDLetter (Vol. 8, No. 2). This issue of SEDL's newsletter is devoted to safety issues, featuring success stories, specialized curriculum choices, and resources for school safety. Contact SEDL at (512) 476-6861.

WestEd

Rebuilding Schools as Safe Havens: A Typology for Selecting and Integrating Violence Prevention Strategies. This guide describes 26 distinct violence prevention strategies and proposes questions for educators assessing current and future school policy.

Guide to Tobacco Use Prevention Among California Youth. A three-volume series, these guides report current research findings about tobacco use among early adolescents and provide recommendations for deterring use. Contact WestEd at (415) 565-3000.

SAFETY
FIRST

North Central Regional Educational Laboratory

Perspectives on Violence and Substance Use in Rural America. Eradicating the myth that only urban centers encounter violence and substance abuse, the authors explore the factors that lead to these problems and offer approaches tailored to rural communities.

Safe Schools Within Safe Communities: A Regional Summit in the Heartland. This special policy report documents the proceedings of a September 1995 regional policy seminar addressing the issue of safe schools in the Midwest.

Voices. This audio magazine series from NCREL's Midwest Regional Center for Drug-Free Schools and Communities features interviews with professionals who offer suggestions and strategies for prevention and intervention. Titles include:
- *Another Voice/Our Voice: Overcoming Threats to the Human Spirit*
- *The Making of a Drug and Violence-Free America*
- *Neighborhood Policing: Helping Communities Overcome Fear*

Contact NCREL at (708) 571-4700.

r&d resources

Making schools free from violence, guns, drugs, and alcohol is one of the goals that guides education policy in this country. The regional educational laboratories and national research centers [illegible] R&D efforts to assist administrators, teachers, and parents in fulfilling this goal. Here is a sampling of some resources available. Please contact your regional educational laboratory for further information.

BEST COPY AVAILABLE

Professionalization and the Public Trust

‹continued from page 2›

instructional approach. Now research supports the integration of the two, and R&D investments are producing strategies for doing that.

- Reading, in a formal sense, must be taught in all content areas, not just in English class or at the elementary level. Different subjects use unique terminology and convey information in strikingly different ways, all of which students must be prepared to comprehend. Every teacher must know how to teach reading.
- More and more, technology is becoming a medium for transmitting information and knowledge. Schools must extend reading instruction to the reading of hypertext — a nonsequential, interactive text system — so that students can access a deeper and wider base of information.
- Parents (and other responsible adults who care for children and youth) influence children's reading habits. The proof is that parents make a significant difference in their children's reading skill when they demonstrate an attitude that values literacy and when they read to children as often as possible. Schools must encourage parents to get involved in children's development of reading skills.

Parents' trust in teachers is enhanced when parents understand their child's progress. The Council for Educational Development and Research has developed an easy-to-understand set of checkpoints for teachers to give parents to help track their child's reading development across grades K through 12. For free copy of the "Checkpoints in Reading" write to CEDaR at the address on this publication or call (202) 223-1593.

Correction

In the August issue of *R&D Watch* (Volume 1, No. 3), we incorrectly identified the section of the Telecommunications Act that refers to universal service. Section 254(b) is correct.

[illegible]

CED R
2000 L Street NW • Suite 601
Washington, DC 20036

Non Profit Org.
U.S. POSTAGE
PAID
CEDaR

BEST COPY AVAILABLE

Mathematics and Science Education

☐ ***EdTalk: What we know about mathematics teaching and learning*** (1991) Nancy Kober

This publication deals with (1) student attitudes; (2) everyday relevance; (3) integration with curriculum; (4) cooperative learning; (5) higher order thinking skills; (6) active instruction versus information transfer; (7) gender equity; (8) special needs students; (9) textbooks, manipulatives, worksheets, calculators, computers; (10) standardized tests and alternative assessment methods; (11) international comparisons; (12) teacher expertise; (13) departmentalized instruction; (14) parent attitudes; (15) homework; (16) mathematical learning in the home; and, (17) television viewing and mathematics achievement. $5; 69 pp.

☐ ***EdTalk: What we know about science teaching and learning*** (1993) Nancy Kober

The question-answer format of this publication deals with (1) the need for change, (2) systemic reform, (3) essential science learning, (4) attitudes and motivation, (5) equity, (6) instructional methods and materials, (7) assessment, (8) teacher expertise, (9) teacher and community collaboration, (10) parent attitudes and involvement, and (11) business and community involvement. This publication is a collaborative effort between the Council for Educational Development and Research, and the Triangle Coalition for Science and Technology Education. $5; 95 pp.

☐ ***Promising practices in mathematics and science education and Mathematics, science, and technology education: Programs that work*** (1994)

This two-book set of research-based, effective programs, produced by the National Diffusion Network (NDN) and the 10 Regional Educational Laboratories, will help educators prepare students to meet world-class standards and improve their achievement in mathematics, science, and technology. Teachers can replicate the programs or adapt them to their own needs. NDN facilitators can provide materials, training, technical assistance, and advice on each program. Was $20, now $7.50; 302 pp.

Products from Eisenhower Regional Consortium for Mathematics and Science Education at AEL

☐ ***Charmed Particles***

The newsletter of the Eisenhower Regional Consortium for Mathematics and Science Education contains articles about what's happening with national policy and standards related to math and science; research about methods, assessment, and curriculum; what's being talked about by legislators, researchers, state departments of education, and college-based teacher educators; questions being asked about math/science education; and funding sources for projects. Free.

☐ ***Scope it out: Standards-based microscope lessons for the middle school*** (1996)

Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource treats the microscope as both a scientific discovery and as a tool for science. The publication contains lessons developed by classroom teachers, as well as information about laboratory safety, the development and mechanics of the microscope, and classroom activities reflecting the *National Science Education Standards*. $5; 62 pp.

☐ ***Increasing student access to mathematics and science: A guide for classroom equity projects*** (1995)

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. Limited instructional materials, equipment, and/or human resources may prevent classroom projects that address the needs of underserved students. The guide provides a description of projects, tips from teachers, and information on funding sources and proposal writing. $5; 44 pp.

ERIC DIGESTS

These easy-to-read, informative digests summarize the education literature on a specific topic. Each brief includes a reference list.

☐ ***Gender Differences in Adolescent Career Exploration***, ERIC Clearinghouse on Counseling and Student Services, 1995

Career exploration is a developmental stage identified by career development theorists and occurs typically during adolescence when boys and girls try out various work roles in part-time work, volunteer work, or in school/community activities. This digest focuses on gender differences in the role of assessment in the exploration process. Girls have been found typically to explore careers from a narrower set of career options than do boys. Career education programs and classes in high school have attempted to reduce stereotyping in a variety of ways.

☐ ***Supporting Girls in Early Adolescence***, ERIC Clearinghouse on Elementary and Early Childhood Education, 1995

Results of national studies suggest that, for girls, the middle grades can be a time of significant decline in self-esteem and academic achievement. Reasons for this decline are not clearly indicated by research, but it is likely that multiple factors are involved. One possible factor is the preferential treatment boys receive in the classroom. Out-of-school factors include girls' observations about the different status of men and women in society. A third factor relates to cultural differences in sex role socialization. This digest suggests ways parents and educators can support and encourage preadolescent girls.

☐ ***Making Mathematical Connections in the Early Grades***, Clearinghouse for Science, Mathematics, and Environmental Education, 1995

Of all the reform recommendations being made by the National Council of Teachers of Mathematics, making mathematical connections is among the more difficult to achieve, yet is so helpful in motivating students in the early grades. Mathematical connections can relate mathematical topics to students' daily lives and to other mathematical topics, but are probably most important in relating mathematics to other curriculum areas. These connections help students understand mathematics better and see it as a useful and interesting subject to study. This digest gives 18 sample activities appropriate for use in the early grades to connect mathematics to other subjects.

Low-Cost Books and FREE Resources on **Rural Education**

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

☐ ***Local Schools of Thought: A Search for Purpose in Rural Education*** by Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12.00

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort tq improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

> "*. . . [T]he nature of the learning that is to proceed and the conditions necessary to that learning are the foci of* Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools.*"—John I. Goodlad

☐ ***Managing Smallness: Promising Fiscal Practices for Rural School District Administrators*** by Deborah Inman Freitas, 1992, 74 pages, soft cover, ISBN 1-880785-05-6, ~~$10.00~~, now $7.50

Rural superintendents and business managers from around the country describe successful strategies for the financial management of rural, small school districts. Examples include increasing your district's average daily attendance by providing a full-day kindergarten, by developing a perfect attendance incentive program, or by including home schoolers in their head count by sponsoring and monitoring their program. Other topics include addressing crucial budgetary concerns and successful cost-reduction programs, personnel management, collaboration, communication, equity, quality, community development, and cooperative options for rural schools.

☐ ***1996 Rural Education Directory: Organizations and Resources.*** Compiled by Patricia Cahape Hammer, 58 pages, soft cover, $12.00.

Handier than ever with a detailed index, this new directory includes national organizations, associations, networks, centers, and clearinghouses; federal government agencies and Congressional offices; rural journals; and state organizations, National Rural Education Association affiliates, state department of education rural program coordinators, state data centers, and other groups involved in rural education at the state level.

ERIC/CRESS BULLETIN

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list, allowing me to receive three issues per year, free of charge.

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants. Free.

Free Digests from ERIC/CRESS on Rural Education

Check your selections and fill out the address form on page OF-1.

Digests are two-page (1,500-word) summaries of the education literature on a specific topic, including a reference list of about 10 good sources of more in-depth information. Digests are brief, informative, easy to read, and free.

☐ ***Charting New Maps: Multicultural Education in Rural Schools.*** J. P. Oliver & C. Howley (1992), EDO-RC-92-1

☐ ***Cultivating Resilience: An Overview for Rural Educators and Parents.*** M. Finley (1994), EDO-RC-94-5

☐ ***Developing Supplemental Funding: Initiatives for Rural and Small Schools.*** R. Carlson (1993), EDO-RC-93-4

☐ ***Integrated Services: A Summary for Rural Educators.*** M. N. Lutfiyya (1993), EDO-RC-92-09

☐ ***Middle Level Education in Rural America.*** J. W. Wiles (1995), EDO-RC-95-7

☐ ***National Data for Studying Rural Education: Elementary and Secondary Education Applications.*** G. Huang (1995), EDO-RC-95-2

☐ ***The Role of Rural Schools in Rural Community Development.*** B. A. Miller (1995), EDO-RC-95-3

☐ ***Rural Philosophy for Education: Wendell Berry's Tradition.*** P. Theobald (1992), EDO-RC-91-12

☐ ***Rural School Consolidation and Student Learning.*** J. Fanning (1995), EDO-RC-95-4

☐ ***What Can I Become? Educational Aspirations of Students in Rural America.*** T. Haas (1992), EDO-RC-91-11

BEST COPY AVAILABLE

research skills students acquired. Students had to identify a bridge to study and collect their own information, following a research guide we had prepared for them. A documentary video on the Golden Gate Bridge sparked ideas for their own presentations. For a group presentation on the Verrazano-Narrows Bridge in Brooklyn, students chose to produce a still-life museum. They dressed in 50's clothing and hairstyles, played Elvis' tapes in the background, displayed their candy bridge, and presented information about the bridge orally and on charts. They completed their presentation by serving Coney Island hot dogs.

The language arts classes looked at another type of bridge—the bridge of friendship. From the novel, *Bridge to Terabithia*, we learned how to construct good friendships and about the importance of building survival skills if we lose a friend. A friendship quilt reflected our students' values and the importance of making friends and working at relationships. We traced the development of Jesse, the novel's main character, who confronted his fears throughout the story. A psychiatrist from our local hospital gave advice on how to rid ourselves of fears and phobias. One of Jesse's goals was to win a foot race at his school, so we even got our physical education teacher involved—she and some of her track students gave us tips on becoming good runners.

Students in one group took their activity outside. With parents' assistance, they created a park behind the school that included a nature trail, footbridge, and butterfly garden. A ribbon-cutting ceremony—featuring a choral presentation from our ecology club—concluded this activity. Their song reminded us to take care of our world. The closing ceremonies moved inside where we shared a delicious cake, beautifully decorated with—what else—a bridge!

Perhaps some special event in your community will lend itself to building a set of related activities in your school. Try it; it makes learning fun!

Family Nights Bring Parents to School

By Judy Hobson, Teacher, Nora, VA

I received a $500 minigrant from the Virginia Education Association to promote family involvement during the 1995-96 school year. My proposal, "Building a Bridge," [not related to previous story] was geared toward kindergarten students and their families. My project aimed to get parents and other family members to come to school, become involved in kindergarten activities, get acquainted with the units of study, and reinforce learning activities at home.

A series of Family Nights with kindergarten students and their families seemed to be just what we needed to begin building that bridge. I planned three Family Nights—one each for math, social studies, and science—and purchased the necessary materials. I sent home notes to parents explaining the forthcoming evenings' activities. Those committed to attending signed a form and returned it to school; 12 families responded. We were on our way!

The Math Family Night came first. During math time, my students had been using rhymes to learn numbers, playing number bingo, making patterns, using dominoes for ordering numbers, and doing graphing activities. I explained that I wanted to show their families what we were working on at school. My students were excited and ready to participate. The number of activities we planned required the use of two classrooms, so I recruited three other teachers to help—one to capture the event on video, one to take pictures, and another to help manage activities.

An overflow crowd of students, siblings, parents, and grandparents gathered in the classroom for that first event. At first, everyone participated in a large-group graphing activity. Then, each family went from one activity to another until they had tried them all. Our bridge was being built!

In November, my class began a unit on Native Americans. Students approached this unit with lots of enthusiasm as we learned about the

---

Judy Hobson is a teacher at Ervinton Elementary School, P.O. Box 387, Nora, VA 24272; 540/835-9818.

Native Americans, their different homes, customs, foods, and lifestyles. The Social Studies Family Night was held the night before Thanksgiving break. Cold weather and snow flurries didn't stop 37 students and family members from participating. First, they looked at the items we had on display relating to our Native American unit. Then, with their families' assistance, students decorated a teepee and made dream catchers, drums, and sand paintings. The bridge was going up right before my eyes!

The Science Family Night was held in April. I sent home notes suggesting possible projects for the upcoming school science fair. Students could also pursue a project idea of their own. Approximately 22 people attended the Science Family Night. The students did their experiments with their families, and the parents helped them write up and organize their projects. In the past, there had been little participation in the school science fair by kindergarten students. This was the best participation I had seen since I began teaching kindergarten—and the projects received very good reviews from the judges.

Overall, I think all three Family Nights were a success. We experienced great participation, loads of enthusiasm, wonderful attitudes, and a feeling of togetherness at all three. I truly believe we did build a bridge from our students' homes to our school.

We appreciate the efforts of Karen Whetzel, Virginia's teacher representative on AEL's Board of Directors, in obtaining the articles that appear in this issue of Focus on Instruction.

Tennessee's Block Scheduling Program Shows Early Signs of Success

After the first year, the pros outweigh the cons in Tennessee's experiment with block scheduling. Tougher graduation requirements for Tennessee high school students prompted 25 schools to try out a restructured school day. In place of the traditional yearlong courses, offered for about 45 minutes every day, schools followed the Four by Four Plan—four 90-minute classes, each offered for 18 weeks (half a traditional school year).

Behind the move was the fact that the increase in required units for graduation threatened students' ability to take elective courses. The Four by Four Plan increased the number of classes students could take during their high school career (eight per year, instead of six), meaning that students would not have to sacrifice elective courses because of the additional required units.

Researchers Dennie L. Smith and Mary J. McNelis report that questionnaires and group interviews with staff and administrators revealed success in several areas: increases in student-centered instruction and overall learning, improvements in morale, and decreases in disciplinary problems and dropout and failure rates.

However, despite hopes that longer class periods would open the door to more meaningful and interactive learning, reviews were mixed as to how effectively the longer periods were being used. Some teachers were reluctant to change old ways. A majority of schools said additional teacher training was needed. Schools also reported problems getting staff and scheduling systems accustomed to block schedules, and absenteeism had a greater impact, as students out of classes for just a few days missed twice as much work in each subject.

Nonetheless, all 25 schools were continuing block scheduling for a second year, and more than 100 schools had plans to implement block scheduling during the 1995-96 school year.

Ordering Information: *A Status Report on Alternative Scheduling in Tennessee High Schools* is available from the Center for Research in Educational Policy, The University of Memphis, Memphis, TN 38152 (use order no. 9602, 4 pages, free while supplies last).

Search Package On Block Scheduling

Resource Center staff have pulled together the most up-to-date literature on block scheduling, which is now available as an information search package. To obtain a copy, see the AEL Order Form.

Booklet Provides Lesson Plans for Using the Microscope in a Standards-Based Classroom

The microscope is an indispensable tool in the science classroom of today. It provides teachers and students with the opportunity to examine living and nonliving things too small for the eye to see without assistance. Also, the laboratory experience is seen as an essential part of the science curriculum.

The use of the microscope is called for by many organizations, including the National Research Council in its publication of the *National Science Education Standards*, the American Association for the Advancement of Science in *Project 2061: Benchmarks for Science Literacy*, and the National Science Teachers Association in *The Content Core*.

During the 1994-95 school year, the Eisenhower Regional Consortium for Mathematics and Science Education at AEL provided training and technical assistance in using the microscope as a learning tool in a standards-based curriculum. At Consortium-sponsored workshops across the Region, more than 180 teachers from 104 counties were given sets of materials—microscopes, prepared slides, and blank slides—for use in their classrooms. Participants learned about the microscope itself, as well as ways to use it to teach science concepts and processes. The workshops established a foundation for creating a connected curriculum while promoting the *National Science Education Standards* as a guide for high-caliber classroom performance.

Following the workshops, teachers developed classroom lessons that demonstrated the use of microscopes for inquiry and experimentation. Selected lessons—six from each AEL state—are now available in a booklet titled *Scope It Out: Standards-Based Microscope Lessons for the Middle School*. (One lesson is reprinted in the box below.)

The lessons were reviewed for content, process, and applicability to the *National Science Education Standards*. They should be viewed as starters for using the microscope in the classroom. Teachers can personalize the lessons by including their own individual questions, processes, and expected results that relate to instructional and curriculum goals.

In addition to the lessons, the publication contains information about laboratory safety and the development and mechanics of the microscope. (This 62-page publication is available for $5; see the AEL Order Form.)

Algae: A Useful Product

Submitted by: Eva Ellis
Madison Middle School
Madison, West Virginia

Objective of Lesson: •Students will learn that people use many naturally occurring products to improve the quality of life. As scientists, we learn to use nature to help people. During this activity, students will explore the uses of diatoms, or algae, in nontraditional settings. Diatoms make up diatomaceous earth, which is used in the manufacture of silver polish, cleaners, toothpaste, air and water filters, and some types of brick and concrete.

Materials:

One jar of silver polish (Wright's Silver Cream is recommended.)

Microscope slides

Coverslips

One microscope for each pair of students

Instructions to the Teacher:

(Safety note: Warn students not to get the polish on the microscope lens, because it is abrasive and will damage the lens.)

1. Ask students to place a small amount of silver polish on a microscope slide.
2. Tell them to add a drop of water to spread it out into a thin film.
3. Tell them to cover with a coverslip.
4. Have students observe with low power and then high power. Ask them to draw their observations and include any descriptive comments useful in describing the diatoms viewed.
5. Discuss with students:
   a. How many kinds of diatoms are in the silver polish?
   b. When and where did these diatoms live?
   c. Why do the diatoms scratch the silver?
   d. What uses do diatoms have in society?
   e. How could diatoms be used by astronauts?

Egyptian Delegation Visits AEL

AEL recently hosted five officials from Egypt's Ministry of Education. The group was the first delegation to visit the U. S. under a binational agreement signed last year by Vice President Al Gore and Egyptian President Hosni Mubarak, establishing the Partnership for Economic Growth and Development. The five spent the day with AEL staff learning more about the Laboratory's rural specialty area; professional development work in math, science, and technology; and issues in vocational technical training. They also visited local implementation sites for school-to-work and instructional technology—two areas of particular interest to group members.

The Link

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Betty James
Marian Keyes
Pat Penn
Beth Sattes
Diana Bowman

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Non-Profit Org.
U.S. POSTAGE
PAID
CEDAR

VELMA MITCHELL
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 15
No. 3
•
November
1996

"Runyan & Company" Meets Curriculum Integration

by Joy Runyan, Teacher, Athens, TN

As her exhausted but happy daughter related the past week's adventure, the mother knowingly smiled. She knew how special the week had been because she had not seen her daughter's eyes dance like that in years. Was the daughter a young girl attending summer camp for the first time? A teenager who had traveled to a foreign country? No, the daughter was **me**, and my adventure was attending AEL's 1996 Interdisciplinary Teamed Instruction Institute at Radford University in Virginia. I was so fired up that my family questioned whether I had really attended a workshop—or slipped away on a secret excursion.

The instructors* actually practiced everything they preached! The various hands-on activities had me furiously taking notes and planning to incorporate my experiences into the curriculum. I collected brochures, asked questions, and copied everything in sight from an abundance of audio and visual materials. Meeting our information needs was one of the facilitators' primary concerns. If we requested something, it appeared. We accumulated enough user-friendly ideas and research citations to pack a two-inch binder.

Although it sounds like a monumental task, the Institute was really a pleasure! It was well paced, factual, hands-on, fun, and relevant. Application of my newly acquired knowledge to the real-world setting of the junior high classroom has been extremely easy, highly rewarding, and terribly exciting. The facilitators helped ease the transition from research and facts to the real world of the classroom. They produced the research and tasks to back up what I had been trying to develop all along with my students. I realized I was not that "crazy science teacher down the hall." I was teaching the right way, after all. I was a sponge, absorbing their terrific ideas and techniques. This caliber of information is a rare commodity.

Has this one week in the Virginia mountains actually changed life as I knew it as a teacher? Has it affected my students' program? You bet it has! I previously believed in a holistic, student-centered approach to learning, running my eighth-grade science classroom as a business known as Runyan & Co. But my weeklong

(continued on page 1-2)

---

*Facilitators for the Institute were Becky Ledbetter of AEL, along with Doug and Barbara Fleming, consultants for School Strategies & Options, Lynchburg, VA.

In this issue:

AEL AROUND THE REGION
"Runyan & Company" Meets Curriculum Integration, p. 1-1
Using the Internet as an Effective Instructional Tool: Focus of Tennessee Project, p. 1-4

NOTEWORTHY
Professional Development Needs Rethink to Help Teachers Approach New Standards, p. 1-4
"Dimensions" Let Teachers Actively Engage Students in the Learning Process, p. 1-5
More to Music than Meets the Ear, p. 1-7

FOCUS ON INSTRUCTION
Civic Organizations Find Informative Speakers in Local Schools, p. 1-4
After-School Program Offers Franklin Students Much Needed Support, p. 1-6
Fairview High's Student Services Team Gets Kids Back on Track, p. 1-6
Women and Tyranny in American Literature, p. 1-7

INSIDE AEL
Involved in Classroom Research? p. 1-8

AEL
celebrating
30 YEARS OF SERVICE
to education in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Students work as a team on their "mousetrap mobile racers." One is cutting out wheels from styrofoam, and the other is holding parts to let the glue set.

- Kentucky
- Tennessee
- Virginia
- West Virginia

AEL AROUND THE REGION

training changed business as usual in my classroom. It's exciting, the kids love it, I'm having a blast, and it works!

Curriculum integration has fit our Runyan & Co. framework to a tee. On the first day of school, students sign up to work in business-oriented teams called "departments." Departments are responsible for daily classroom operations (taking roll, keeping absentee folders, displaying projects, issuing papers, filing completed work, etc.). During the first few classes, I act as "management" and interview the new Runyan & Co. "employees" (my students). The interviews help us learn more about our employees and what they bring to the workplace: different strengths, backgrounds, perceptions, learning styles, personalities, and means of solving problems and resolving conflicts in group settings. For the team to work together with maximum efficiency, everyone needs to accept, appreciate, and be able to adapt to others' strengths, opinions, and skills. The interview also helps management understand the employees—how they perceive themselves and how they might handle future situations.

The initial interview begins with DeBono's *Six Thinking Hats*. Students trace their hands on sheets of black, green, red, white, yellow, or blue construction paper, choosing colors to denote thinking styles. They list their strengths on each finger of the hand. This exercise teaches students to be more tolerant of others and also validates their own styles of learning.

The interview process continues with David Johnson's *Conflict Resolution Styles*. After group discussion, students choose personal preferences for settling interpersonal problems. Then they glue a fox, sheep, owl, shark, ostrich, or cartoon character—representing their conflict resolution style—to the palm of their construction paper hand.

Finally, the interview focuses on Gardner's multiple intelligences. A 35-item questionnaire allows students to determine the intelligences in which they excel. Students soon see why Runyan & Co. must offer such varied methods of instruction, presentation, and testing formats. Students adorn their paper wrists with bracelets of colored stickers representing the intelligences—for example: body/kinesthetic, interpersonal, logical/mathematical, musical, verbal/linguistic, or visual/spatial. The hands are displayed on a team bulletin board representing the many unique individuals at Runyan & Co.—their strengths, personalities, and learning styles. The fingers of the hands are interlocked, signifying the Runyan & Co. team.

The interview strategy has helped tremendously. Before the Institute, Runyan & Co. was missing something. We were not a cohesive company. The Institute filled in the blanks. The facilitators taught us important communication skills for working in groups. For example, the construction paper hands provide a vehicle for discussing affective issues. One student's creative product may be captured by a green hand, while another's strictly factual report is represented by a "just the facts, ma'am" white hand. A student with a sunny disposition might be described as "wearing yellow gloves" today. Such table talk skills keep group communication flowing, helping students to complete projects on schedule.

Meeting the needs of multilevel students—running the whole gamut of academic ability—is a challenge. The Institute supplied the tools for organizing student contracts to meet state curriculum requirements in preparation for state testing. It showed me how to incorporate pre- and posttests into short units of study, while giving the students "ownership" of the class and learning materials. For each one- or two-week unit, we follow a similar format.

To begin each unit, the Factual Component tests the knowledge students are expected to have prior to entering the eighth grade. It includes two sections: a paper/pencil test of definitions and concepts, and a skill proficiency test (show me you can do it). Nonmastery on this pretest funnels students toward the Mechanical Component—designed to meet deficiencies—followed by a mastery posttest. With mastery, students move to the Creative Component, in which they contract for a grade and prove mastery of initial vocabulary, concepts, and skills. A, B, or C contracts differ according to the amount of work they require, as well as their quality and creativity. Each unit offers different contract options. Students present contracted projects to the class, either individually, in pairs, or in small teams. We call our projects the **World Famous™ Runyan & Co. Products**. Students really become engrossed with designing, manufacturing, and producing products. Sometimes, they actually believe we will receive money from the hypothetical companies that have hired our departments to create products to sell.

One product we developed provided a springboard to teaming with other eighth grade teachers. Although our eighth-grade team will not fully implement curriculum integration until 1997, math and social studies team members worked with me on a problem-solving unit for the Creative Component in science that incorporated a design technology activity we did during the Institute—the "mousetrap mobile" (see photos). Science students learned problem solving and the Scientific Method as they designed their mousetrap-powered vehicles, while in social studies they discussed the pros and cons of patenting an invention. At the same time, the math teacher reviewed measurement skills and the use of rulers and protractors—skills that were needed to design the vehicle. Developing longer units for next year will be a snap after practicing on a smaller scale this year what we learned at the Institute.

Has the daughter calmed down from her summer adventure with Interdisciplinary Teamed Instruction? I don't think so! Most important of all, I have found new friends only an e-mail message away. Whenever I have an idea, problem, or thought, I can always find someone I can count on for help, constructive criticism, and advice. When you attend the Institute, you, too, will come home loaded down with materials, ideas, and usable techniques and skills. Try it next summer with your team—you'll like it!

Interdisciplinary Teamed Instruction—Institutes for School Teams

Interdisciplinary Teamed Instruction is a research-based strategy for curriculum integration that focuses on dissolving boundaries between disciplines of knowledge, between students and teachers, and between school and community.

AEL offers weeklong institutes designed for administrator-teacher teams from middle and secondary schools, who build team skills as they develop an integrated unit or course. Three or more teachers and at least one administrator make up a team from each participating school. District administrators are also encouraged to attend.

Participating teams:

- examine topics related to interdisciplinary teaching;
- prepare for block scheduling;
- build support networks with other schools;
- translate theory into practical ideas; and
- learn with knowledgeable, experienced facilitators.

Institute facilitators are Rebecca Burns of AEL and Barbara and Douglas Fleming of School Strategies & Options in Lunenburg, MA. Burns is author of *Dissolving the Boundaries: Planning for Curriculum Integration in Middle and Secondary Schools*. She is also an experienced facilitator of professional development for curriculum restructuring. The Flemings are well known for their work with schools on strategic planning, team building, and effective leadership.

For more information about attending or sponsoring an Institute, call Rebecca Burns at AEL or e-mail burnsb@ael.org.

Mousetrap mobile racers on display . . . many different ideas for the body, wheels, axles. As each class comes in, much comparison is done between materials, design, etc. Grades are based on design, effort, distance, etc.

Joy Runyan is an eighth-grade science teacher at Athens Junior High School, Athens City Schools, Athens, TN 37303; e-mail: runyan@[illegible]

Using the Internet as an Effective Instructional Tool Focus of Tennessee Project

Although more and more teachers are using the Internet as a classroom instructional tool, little is known about which instructional applications or activities are most effective. One AEL project is aimed at helping identify ways that Tennessee educators can scale up Internet use as a part of meaningful instruction.

The project has two objectives: (1) to identify ways in which expert teachers already use the Internet as a tool to enhance students' intellectual development, and (2) to produce a set of products that assist teachers in using the Internet to enhance students' learning.

Teachers using the Internet for instruction in exemplary ways are now being selected to participate. Those already identified have been paired with researchers who will conduct classroom observations and consultations. The classroom observations, which began this fall, will be followed by interviews to determine how the teachers integrate the Internet with instruction.

In the project's next phase, materials will be developed to help other teachers use the Internet more effectively. AEL will work with the state department of education to field-test the materials. In the final phase, teachers will develop and implement strategies for enhancing teachers' successful use of the Internet in classrooms.

More minority teachers are still needed for the project; anyone interested in participating should call Pat Kusimo at AEL or e-mail kusimop@ael.org.

Professional Development Needs Facelift to Help Teachers Approach New Standards

Education reformers are asking teachers to learn new instructional approaches so that their students can meet tough, new learning standards. Professional development is a means to this end, but as a policy brief by the Consortium for Policy Research in Education suggests, many professional development programs are too narrowly focused to have full effect.

"The traditional model of professional development that focuses primarily on expanding a teacher's repertoire of well-defined classroom practice reflects a limited conception of the dimensions of teacher capacity," say researchers Jennifer O'Day, Margaret E. Goertz, and Robert E. Floden. "And it ignores the other parts of the education system that directly impact a teacher's ability to teach." Professional development should help teachers deepen their knowledge of subject matter, curriculum, and students. The researchers add that teachers' attitudes toward change, commitment to student learning, and views of their own abilities all affect their ability to help students meet tough standards.

However, changing the attitude of individual teachers may not be enough if other teachers in the same schools continue in their old ways and offer no support. No matter how able a teacher, the "ability to accomplish the goals set out by the new standards depends not only on personal capacity but also on the capabilities of his or her colleagues," the researchers continue.

The researchers suggest that schools build this kind of organizational capacity by: (1) creating a vision and mobilizing support for successful teaching and learning; (2) sharing a sense of commitment to and responsibility for students; (3) ensuring ongoing reflection and improvement; (4) letting teachers know where they can turn for help; (5) linking structural changes to learning goals, rather than viewing the changes as the goals themselves; and (6) providing teachers with common planning time by restructuring the school day.

Ordering information: *Policy Brief: Building Capacity for Education Reform* is available from the Consortium for Policy Research in Education, University of Pennsylvania, Rm. 3W, 3440 Market St., Philadelphia, PA 19104 (10 pages, single copies free).

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Be sure to remove **all 4 pages** of this Order Form
(OF-1 through OF-4), and
don't forget to **include payment** for priced items.

Please use this form to order materials **from AEL.**
Check (✓) your selections and complete the shipping information below.

To order products described in R&D Watch, use the ordering information provided at the end of each product description.

Shipping information: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

Postage
Required

Daytime phone or e-mail

(in case we have a question about your order)

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Free Resources Available from AEL

ERIC Digests

These easy-to-read, informative digests summarize the education literature on a specific topic. Each digest, usually two pages, includes a reference list.

☐ ***Assessment and Testing: Measuring Up to Expectations***, by Christine Cress, ERIC Clearinghouse for Community Colleges, 1996, [illegible]

As a result of increasing pressure from external constituencies, community colleges have been called upon to demonstrate accountability through assessment activities and research on institutional effectiveness based on student outcomes. Community colleges include transient student populations, students with a wide range of ability and academic goals, and large numbers of adjunct faculty. Therefore, assessment should focus on the improvement of campus instructional and support programs to increase student success, rather than on national comparisons. In addition, it is critical that colleges determine who will assess the information collected and how it relates to student learning and instruction. Although offering intrinsic rewards encourages participation in assessment activities, assessment only becomes an integral part of the institution when this focus is clearly stated in the mission of the college and emphasized as a part of ensuring student success. Faculty resistance and lack of resources are often barriers to assessment processes. Finally, rather than searching for a single indicator to demonstrate success, institutions should value the use of different benchmarks as evidence of institutional effectiveness.

☐ **Communication Skills**, by Karen Irmsher, ERIC Clearinghouse on Educational Management, 1996, [illegible]

On average, leaders are engaged in one form or another of communication for about 70 percent of their waking moments. This digest provides suggestions for school leaders who want to increase the effectiveness of those interactions. A first step is to recognize that listening is the skill most essential to effective communication. Other skills of effective communication include asking questions, giving constructive feedback, paraphrasing, checking perceptions, and describing behavior. Tips for improving nonverbal communication and for enhancing interpersonal relationships with colleagues and constituents are also offered.

☐ **Integrative Education**, by Dean Walker, ERIC Clearinghouse on Educational Management, 1996, [illegible]

A growing number of education reformers are justifying their reform strategies by pointing to the findings of developmental brain research, theories of information processing, and the needs dictated by today's information-rich world. They advocate integrative education, which places students in a holistic context. This digest describes the principles of integrative education and research outcomes on its effectiveness. As yet, findings on the effectiveness of integrative education are inconclusive. The forms of implementation and administrative support for integrative education are also described.

☐ **Politically Correct on Campus**, by Nola Kortner Aiex, ERIC Clearinghouse on Reading, English, and Communication, 1996, [illegible]

This digest reviews materials that discuss political correctness and its manifestations on college campuses. First presenting opposing definitions of the term (liberal and conservative), the digest then reports on the topic as seen in the research and offers several suggestions about incorporating the conflicts themselves into the curriculum. The digest concludes by considering whether or not political correctness is really an important issue on college campuses.

☐ ***Supply and Demand of Teachers of Color***, by Mark E. Lewis, ERIC Clearinghouse on Teaching and Teacher Education, 1996, [illegible]

This digest focuses on the data that show significant disparities between the number of teachers of color and the number of students of color and examines how well schools, colleges, and departments of education are doing in supplying teachers of color for U.S. classrooms. The document is organized into three sections. The first section discusses whether there is an increasing demand for teachers of color, and indicates that the need becomes evident when one looks at how student enrollment patterns in public elementary and secondary schools have altered the makeup of the classroom. Section two addresses reasons for the decreasing supply of teachers of color including the effects of competency testing and increased opportunities in other professional fields. Although more teachers of color are completing education degrees than in previous times, the numbers are not keeping pace with the demographic changes in K-12 enrollments. The final section asks what can be done and outlines four C's of recruitment: (1) concern for the various aspects of the issue and a readiness to tackle them; (2) commitment by key leadership to the recruitment program; (3) collaboration among all those concerned; and (4) creativity in developing a program.

Continued on p. 178-A

R&D watch

volume 1 · number 1
[illegible] 1996

a review of education research and development findings

Contents:

[illegible] .... page 2

School Reform: Improvements Beyond the Classroom Door

- [illegible] .... page 2
- [illegible] .... page 3
- [illegible] .... page 4

Parent and Community Involvement: New Challenges for Schools

- [illegible] .... page 4
- [illegible] .... page 5
- [illegible] .... page 5

Assessment: Do Alternative Assessments Pass the Test?

- [illegible] .... page 6
- [illegible] .... page 6
- [illegible] .... page 7

Learning English: Beyond Language Classes

- [illegible] .... page 7
- [illegible] .... page 8

Reading and Writing Instruction: The Teacher Ingredient

- [illegible] .... page 8
- [illegible] .... page 9

Effective Practices: Successes Across the Spectrum

- [illegible] .... page 9
- [illegible] .... page 10
- [illegible] .... page 10

[illegible] .... page 11

R&D Watch
is produced by
AEL
30 YEARS OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

Appalachia Educational
Laboratory
[illegible]

BEST COPY AVAILABLE

Chartering a New Course for Teachers

The nation, in various but growing degrees, is experimenting with charter schools. Presented formally by a regional educational laboratory in 1988 as a way to introduce community involvement and innovation into public education, the idea has taken off.

With much of the media and research emphasizing how charter schools affect students or school policy, what about teachers? What's their role in creating and sustaining viable charter schools? Will the freedom of charter schools provide the instructional context for higher student achievement? Are the promises of teacher opportunities offered — in theory — by charter schools coming true? What changes are in store for teacher practices, skills, and preparation?

Given the discrepancies among states' charter school legislation and the diverse incarnations of such schools in existence, it is difficult to pinpoint hard truths. However, early research does spotlight some consistencies and supports basic generalizations about what charter schools may mean for teachers.

The idea of charter schools embodies tremendous opportunity for teachers, as well as the accompanying risks. In the more autonomous charter schools, teachers are like any entrepreneurs running a "firm" — a potential beneficiary (along with the student, parent, or community "customer") and a partner who assumes a heavy burden of responsibility. It is thought that the inherent trade-off of fewer regulations for more autonomy and community involvement unleashes teachers' untapped professional skills, precipitating innovation in curriculum, classroom management, and instructional approaches. It's an attractive option, but it requires more paperwork and heavier workloads, since teacher responsibility grows to include school leadership outside the classroom.

The extent to which teachers can innovate in the classroom and assume roles beyond the usual limits of the classroom depends markedly on the legislation. Whereas Minnesota's first charter school law allowed *only* groups of teachers to apply for charters, by now laws in most states pertaining to teacher involvement in governance issues varies. And it remains an open question as to what degree traditional rules and regulations have hampered teacher expertise and stunted their effectiveness outright.

Not surprisingly, some in the education community have pondered whether charter schools are "anti-teacher;" that is, what threat they represent to teacher professionalization. What happens to the public trust if hard-earned tax dollars are used to hire unqualified or bad teachers? Few states with charter school legislation require all charter school teachers to be certified. Given the past rigidity of the certification process that sometimes kept out talented individuals, this is an obvious rule to loosen in charter schools. The reason is to promote diversity in the professional experience and knowledge imparted to students. But one can question the soundness of requiring no minimum proof of teaching expertise. Evidence points to the emergence of alternative certification as an attempt to gain flexibility from regulations without jeopardizing teacher professionalism — opening the teaching door without taking it off its hinges.

Charter schools are affecting teacher collective bargaining. Several states' legislative language restricts the options of charter school employees with regards to local collective bargaining agreements. Again, research suggests that, to counteract this,

<continued on page 12>

Reduce School Violence by Promoting Protective Factors in School, at Home

Reducing school violence takes a concerted effort to reduce the risk factors that may lead students to violence. One way to do this is to counteract these risk factors with factors that protect children from such risks, according to a publication by the SouthEastern Regional Vision for Education (SERVE).

SERVE identifies academic failure, students' lack of academic commitment to school, and inconsistent school discipline policies as some of the risk factors associated with violence. On the other hand, a warm and caring school staff that maintains high expectations for students, encourages students to take part in meaningful activities, and individualizes instruction helps youth avoid the lure of violence.

While it's important to address these protective factors within the school, educators should also work with families and communities to help them develop similarly nurturing environments. "Schools are in a unique position to help foster these characteristics because their development is important to the learning process," maintain authors Stephanie Kadel, Jim Watkins, Joseph Follman, and Cathy Hammond.

Depending on the circumstances, this may mean teaching parents to be warm and not overly critical of their children, or it may involve helping parents develop sturctured and disciplined daily routines. Schools might encourage communities to assure young people that they are valued as members of the community. Collaborating with health, social service, law enforcement, and other agencies is also a good prevention strategy, the authors write.

The authors also describe how to assess school and community needs, set priorities, plan programs using student input, and evaluate those programs. They highlight possible prevention program components, such as conflict resolution, counseling, and service learning; campus safety measures; crisis management planning; state and local initiatives; and additional resources.

To Order

Reducing School Violence: Building a Framework for School Safety is available from the SouthEastern Regional Vision for Education, 345 S. Magnolia Dr., Suite D-23, Tallahassee, FL 32301 (cite order no. SV-1196-RD, $8 plus $2.50 shipping and handling, prepaid).

Educators Hurdle Policy Obstacles on the Way to Standards Reform

Many segments of society — from policymakers to parents — hail higher academic standards as key to reforming our education system and improving student achievement. More and more educators, however, are realizing that the kinds of changes needed to carry out reform goals do not simply fall into place just because standards are put in print.

In a policy brief based on a study of reform approaches undertaken in a dozen schools, researchers at the Consortium for Policy Research in Education examine some of the challenges that schools and educators must overcome if standards-based reform initiatives are to effectively improve student and teacher learning.

One such obstacle involves aligning all aspects of a district's education policy with its standards reform efforts. This means not only coordinating curriculum changes within and across grades — e.g., incorporating writing portfolios into high school curricula if they are emphasized as an academic standard throughout middle school — but also redefining assessments and professional development to reflect the new standards.

Among other formidable challenges discussed in the brief are issues of equity, balancing new and old teaching approaches, sustaining momentum through changing political environments, and increasing the capacity of teachers and schools to improve learning.

Researchers Margaret E. Goertz, Robert E. Floden, and Jennifer O'Day augment their findings with descriptions of specific strategies — both successful and discontinued — used by the schools they studied, observing that "[t]he variety of attempted solutions may reflect both human ingenuity and the need to adapt to local circumstances."

To Order

The Bumpy Road to Education Reform is available from the Consortium for Policy Research in Education, Graduate School of Education, University of Pennsylvania, 3440 Market St., Suite 560, Philadelphia, PA 19104-3325 (8 pages, single copies free).

school reform

Benefits of Smaller Classes Extend Beyond Higher Test Scores for Students

In recent decades, mounting evidence has documented the advantages of reduced class size — particularly classes smaller than 20 students — for increasing student achievement.

Test-score comparisons between students in different class sizes abound; however, "understanding *why* differences occur is as important as understanding the raw data on achievement," say researchers Paula Egelson, Patrick Harman, and C.M. Achilles. By examining past and present class-size initiatives in states and school districts, they offer some insight as to "why" in a publication for the SouthEastern Regional Vision for Education (SERVE).

Focusing on a Burke County, North Carolina, pilot program to reduce class size in early elementary grades, the researchers describe the changeover process and provide detailed comments from teachers and parents about why they believe student achievement improved and what other benefits students received.

For instance, with fewer students in a large classroom, teachers could embark on more varied, hands-on learning activities and enjoy a more collaborative atmosphere. Because teachers got to know their students better, they reported fewer discipline problems, increased opportunities to individualize instruction and assessment, and had more substantive communications with parents.

Teachers also commented on the positive "social/emotional impact on students." Students in smaller classes demonstrated more confidence and developed strong friendships with classmates.

"The research suggests that for states, districts, and even schools, class size is a very basic and significant variable to consider in improving educational outcomes," the researchers conclude.

To Order

Does Class Size Make a Difference? is available from SERVE, 345 S. Magnolia Dr., Suite D-23, Tallahassee, FL 32301 (cite order no. RDCSD, 40 pages, $4 prepaid).

parent and community involvement

To Reform Human Services, Coordinate Fragmented Community Programs

The current push in many communities toward establishing school-linked services stems from the realization that the public human services delivery system is in dire need of reform.

In a special issue of North Central Regional Educational Laboratory's *Policy Briefs*, experts review the present state of services administration. They examine what needs to be done to improve the quality of assistance they provide to families and children.

In the lead-off essay, Steven Preister, Executive Director of the National Association of Family-Based Services, asserts that the system's failure is due to fragmentation of departments, services, and resources. He points further to misguided emphases on crisis management instead of prevention and program procedures instead of results.

Preister argues for a community-based delivery system, with the flexibility to respond to the needs of local families, rather than the "one-size-fits-all" approach.

"The current human services delivery system was created over many decades in a piecemeal fashion," Preister writes. "To create community human services coordination, states will have to adopt a holistic approach." This approach, he stresses, must revolve around four key issues: outcomes-based services; new government entities that support service coordination, particularly in legislative and executive branches and at the local level; flexibility in financing strategies; and high-priority investment in training, new technologies, and program evaluation.

Preister's overview is followed by other essays that focus on early childhood service integration and Illinois' comprehensive human services reform efforts, as well as brief mentions of other states' service coordination initiatives.

To Order

Policy Briefs: Human Services Coordination: Who Cares? is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. PB-1-96, 15 pages, $9.95 prepaid).

School-Linked Services Necessitate New Responsibilities for School Leaders

Schools that implement "school-linked services" assume responsibility for helping children and families obtain preventive health and social services or for providing such services themselves. Successfully meeting this responsibility requires that school leaders at every level adopt new roles and duties.

"The earlier practice — 'adding on' social or health services without changing the way the school interacts with families and community agencies — will not work," claim researchers Jeanne Jehl and Michael Kirst in a publication for the North Central Regional Educational Laboratory.

Instead, the researchers recommend that district leaders, such as superintendents and board members, be involved in planning the integration of services from the start. But district leaders cannot dominate the process; they must respect the opinions of other agency leaders and accept institutional limitations.

Jehl and Kirst note that members of San Diego's school-linked services project, *New Beginnings*, developed such collegiality by agreeing to share governance. Monthly meetings of an executive committee rotated to each agency's site, with the host of the month chairing the meeting. This strategy "discouraged any agency from believing it 'owned' the planning process," maintain Jehl and Kirst.

Jehl and Kirst also expect school district and agency leaders to conduct needs assessments and develop a common mission. For their part, district middle managers act as liaisons between agency leaders and school personnel. And principals need to share information with program planners about the students that attend their school and link teachers to staff from other community agencies.

To Order

Getting Ready to Provide School-Linked Services: What Schools Must Do is available from the North Central Regional Educational Laboratory, Order Dept., 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. UMS-GRP-95, 17 pages, $7.95 prepaid; discounts available on 10 or more copies).

Broaden Definition of Parent Involvement to Include Diverse Support

Chinese-American parents manifest their support for their young children's education in a variety of ways — not all of which may be obvious, but nonetheless should be recognized by educators, asserts a publication by the Center on Families, Communities, Schools, and Children's Learning.

Chinese-American parents who are most likely to take an active role in their children's schools are those who have assimilated into American culture. Many of these parents were born and educated in America and feel comfortable around the schools. Mrs. Ho, one such parent studied by researchers Sau-Fong Siu and Jay A. Feldman, volunteers in the school library, helps with fundraising, and is a member of several school committees.

Parents who attended school in China and immigrated more recently may appear to be uninvolved. Because many of these parents feel uncomfortable speaking English in public — and often work very long hours — few participate in traditional school activities.

However, these more recent immigrants find other ways to support their children's education. Many rely on an informal network of Chinese-American parents to provide them with information on school programs, extracurricular activities, and bookstores that sell educational materials. Many supplement their children's school learning with their own assignments. And these parents do contact teachers when their children are having academic problems.

"In order not to place at a disadvantage those families who for various reasons are unable to engage in school building-based activities, it is imperative to expand the definition of parent involvement to include the host of personal, family, community, social, and political activities that either directly or indirectly contribute to the child's development and education," maintain the researchers.

To Order

Patterns of Chinese American Family Involvement in Young Children's Education is available from the Center on Families, Communities, Schools, and Children's Learning, The Johns Hopkins University, 3505 N. Charles St., Baltimore, MD 21218 (cite report no. 36, 93 pages, $11 prepaid).

Assessment designs have moved beyond the traditional format of paper tests and multiple-choice questions. However, efforts to ensure the equity, applicability, and learning benefits of new designs must continue as we explore the realm of alternative assessments.

Opportunity-to-Learn Standards Help Ensure Equity in Alternative Assessments

Schools — particularly urban schools with many minority students — that want to reap the benefits of alternative assessments should also implement complementary opportunity-to-learn standards, urges a publication by the North Central Regional Educational Laboratory.

Alternative assessments — essays, portfolios, performances, and other demonstrations of students' ability to solve real-world tasks — encourage students to draw on their diverse backgrounds and experiences. Because alternative assessments comprise authentic tasks, they may also be more engaging to minority students who historically haven't succeeded in school, maintain researchers Deborah L. Winking and Linda Ann Bond.

However, despite the promise of alternative assessments, urban teachers and principals often wonder whether they are equitable or not. Prior research has shown that minority students don't do well on alternative assessments, but Winking and Bond point out that, in the past, these same students have fared poorly on traditional tests as well.

According to the researchers, this history suggests that the students' poor performance on alternative assessments may merely reflect the inequitable opportunities these students have to learn. "The solution to this problem is adopting equitable, culturally responsive instructional practices that apply to all students and not simply avoiding new assessment tools that assess the very higher-order cognitive processes we are interested in fostering," claim the researchers.

In other words, schools must implement opportunity-to-learn standards, which specify the resources, materials, opportunities, instruction, and learning climate the school agrees to provide to students. The researchers explain that opportunity-to-learn standards level the playing field so that schools can raise their standards for student performance fairly.

To Order

Transforming Teaching and Learning in Urban Schools Through Alternative Assessment is available from North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. UMS-TT-95, 17 pages, $6.95 prepaid).

Mathematics Performance Tasks Produced Slightly Improved Student Learning

Although many teachers and education reformers assume that performance tasks improve student learning, there hasn't been much evidence to prove it. Now, a study by the National Center for Research on Evaluation, Standards, and Student Learning provides some evidence that when students are required to demonstrate what they know and can do — known in the profession as performance-based assessment — they may learn mathematics material better than their peers.

A research team led by Lorrie A. Shepard compared the performance of two sets of third-grade students from the same school on a statewide mathematics alternative assessment. The students who took the assessment in 1992 had traditional math instruction, while the students who took the assessment in 1993 learned math by working on performance tasks.

The researchers found that the second group of students marginally outperformed the first group on the statewide assessment, with students in the bottom and middle of their classes making the greatest gains.

But students' marginal gains over their counterparts from the year before became that much more impressive by looking at "control" schools that enrolled students of similar socioeconomic status. In these schools, all students learned with traditional instruction, and performance actually declined between 1992 and 1993.

Moreover, the researchers note, students who used performance tasks in class improved on the statewide assessment in ways directly attributable to the tasks. For example, 77 percent of these students wrote mathematically adequate explanations about how they solved problems, compared to 31 percent of students the year before and 52 percent in comparison schools.

To Order

Effects of Introducing Classroom Performance Assessments on Student Learning is available from the National Center for Research on Evaluation, Standards, and Student Testing, 10920 Wilshire Blvd. #900, Los Angeles, CA 90024 (cite order no. TR-394, 30 pages, $2.50 plus shipping and 8.25% CA sales tax; call 310/206-1532 for details).

assessment

Teacher Collaboration Helps When Designing Portfolio Assessments

With so much focus on the "science" of portfolio assessment — such as how to evaluate collections of student work — researchers have given scant attention to the art of designing portfolios. Deciding what portfolios should contain — and thus what teachers should assess — is an intensive process teachers need to work out together, even if they only resolve to create broad guidelines that allow each of them to measure different outcomes.

A book published by Teachers College Press describes how teachers in three schools fashioned portfolio assessments through collaboration. "Each of the teachers portrayed here is deeply immersed in thinking about how to assess student learning and each story differs," notes researcher Kathe Jervis.

Take second-grade teacher Cathy Skowron. In 1990, the principal of Cathy's school in Provincetown, Massachusetts, declared standardized tests to be useless, challenging teachers to develop new ways to assess student learning. With help from Harvard University's Project Zero, the teachers turned to portfolio assessment.

Teachers began a process of figuring out what they wanted to measure. "Implicitly embedded in any such discussion are enduring questions that teachers rarely talk about with colleagues: What are the purposes of education? What constitutes learning?," relates Jervis. The result was a portfolio handbook that laid out the teachers' collective philosophical vision.

Cathy and her colleagues then determined the criteria essential to student learning and categorized them into four "dimensions." The dimensions guide teachers in discussing learning with students and collecting and assessing student work.

The handbook and dimensions show that "contradictions [in teachers' visions] can live side by side," describes Jervis. For example, some teachers thought that working quietly was important, while others wanted to encourage students to talk through their learning. "Both criteria appear paradoxically side by side in [the handbook]" cites Jervis.

To Order

Eyes on the Child: Three Portfolio Stories is available from the Teachers College Press, P.O. Box 20, Williston, VT 05495-0020; (800) 575-6566 (163 pages, $19.95 plus $2.50 shipping and handling, prepaid).

learning English

[illegible] and administrators get a first-hand look at how to [illegible] approaches to better serve this population of students.

Innovations in School Organization Help Meet Needs of LEP Students

Schools everywhere are exploring organizational innovations to meet the needs of limited English proficient students. A report by the National Center for Research on Cultural Diversity and Second Language Learning describes four elementary schools that have met with success.

Teachers at Hollibrook Elementary School in Houston stay with their students for several years in a row and can thus work more efficiently and effectively. They control their schedules and can devote large blocks of time to content areas, says researcher Beryl Nelson.

Linda Vista Elementary School in San Diego comprises four smaller, ungraded schools, called "wings." Each wing houses students of different levels of English language fluency so that students can interact with and learn from each other. The school also operates on a year-round calendar so students don't forget their English over long summer breaks. Del Norte Elementary School in El Paso, Texas, similarly offers a four-week summer school program.

Inter-American Elementary School in Chicago extends the school day four days out of each week to allow teachers to use the fifth day for joint planning. Teachers at all the schools design and plan their own professional development activities, notes Nelson.

The schools also try to engage the parents of limited English proficient students. For example, schools send home class materials in parents' native languages, hire office staff who speak the native languages, and refer students and their parents to the health and social services they may need.

To Order

Learning English: How School Reform Fosters Language Acquisition and Development for Limited English Proficient Elementary School Students is available from the National Center for Research on Cultural Diversity and Second Language Learning, Dissemination Coordinator, Center for Applied Linguistics, 1118 22nd St., NW, Washington, DC, 20037 (17 pages, $4 prepaid).

BEST COPY AVAILABLE

learning English

Diverse Approaches Prove Effective in Teaching English Language Learners

How can schools and classrooms best meet the needs of students who speak a native language other than English? It's a pressing question as greater numbers of such students enroll in schools. A new publication by the National Center for Research on Cultural Diversity and Second Language Learning discusses a variety of school and classroom practices that are effective for English language learners.

The publication's descriptions of effective practices come alive with concrete, authentic examples of how schools are implementing them. Educators can use both the theoretical practice descriptions and the real examples "as benchmarks with which to compare their programs and practices and make improvements as they find necessary," describe researchers Diane August and Lucinda Pease-Alvarez.

Among the effective practices mentioned in the publication are the following:

- Educators work together to ensure smooth transitions between successive levels of language development, such as from English as a Second Language (ESL) classes to sheltered English instruction or to mainstream "regular" classes. At Ryan Middle School, ESL and regular classroom teachers meet to decide where to place English language learners the following year, basing their decisions on student portfolios and scores on English language proficiency tests.
- Schools offer a range of activities to help parents support their children's learning. The bilingual teachers at Del Monte Middle School get together with parents on Sunday afternoons. Parents participate in an activity that's part of the teacher's instructional program, such as writer's workshop. Teachers inform parents of the rationale behind the activity, get their feedback on it, and suggest how parents can work with children on the subject matter at home.

To Order

Attributes of Effective Programs and Classrooms Serving English Language Learners is available from the National Center for Research on Cultural Diversity and Second Language Learning, Center for Applied Linguistics, 1118 22nd St., NW, Washington, DC 20037 (50 pages, $10 prepaid).

reading and writing instruction

Teachers [illegible] play a vital role in children's learning [illegible] [illegible] with students, whether through [illegible]

Teachers' Beliefs About Knowledge, Not Use of Basals, Determine Instruction

Despite criticisms to the contrary, basal readers do not control teachers; nor do they "deskill" them by restricting their ability to rely on their own curriculum ideas. Instead, according to one study by researchers at the National Reading Research Center, teachers' ways of knowing — their beliefs about the nature and origin of knowledge — may influence their instructional practices more than whether or not they use basals.

A research team led by James V. Hoffman observed several first-grade reading teachers in the classroom, most of whom used basals in some fashion, either exclusively or in combination with skills instruction or children's literature.

Noting a "great diversity in teaching and learning experiences" in these classrooms, the researchers "observed little of the kind of homogeneity one would expect to find if teachers were blindly following the traditional basal programs currently adopted in their districts as a script or a recipe for instruction."

However, based on interviews and survey questionnaires completed by the teachers, the researchers did see a possible connection between teachers' classroom practices and their beliefs about knowledge. For example, two teachers who closely followed the basal reading program staunchly believed that teaching and learning consisted of "the organized transfer of information/skills to students." Another teacher who relied on the basal teacher's manual, supplemented with some phonics worksheets, lacked the confidence to shape an individual curriculum.

In either case, the teachers relied on some authority's instructional ideas rather than their own. However, the researchers argue, the basal readers did not dictate their teaching approaches; their ideologies did. Using basals simply matched their ideologies.

To Order

Reading Instruction in First-Grade Classrooms: Do Basals Control Teachers? is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite report no. 43, 24 pages, $4 prepaid; make checks payable to NRRC).

Teaching Writing Begins with Encouraging Key Traits in Students' Early Work

Many primary school teachers realize the potential in a young child's scribblings and inaccurately spelled writings. Scribbles and other forms of communication represent the early stages of writing development and provide a good starting point for teaching young children about writing.

"Students can hear and picture ideas, hear and think about organization, recognize and respond to voice, love the sound of words and both hear and feel fluency long, *long* before they can create these things in their own written text," researcher Vicki Spandel reminds us. In a guidebook published by the Northwest Regional Educational Laboratory, Spandel discusses how to teach young students to think like writers and to recognize six key traits of writing ability.

Ideas, the first key trait, make up the heart of the message and include the main theme and supporting details. Ideas are apparent in the complexity and details of student work, such as lots of lines and colors in early artwork.

The second trait, organization, is the framework that gives ideas form and shape. Early signs of organization show that students' pictures accompany the text and are in sequence. Voice refers to the individuality, sparkle, wit, and feeling reflected in students' work. A strong voice tends to get our attention, Spandel points out.

Good word choice is colorful and precise and helps readers form images in their minds. An indicator of this trait is students' willingness to try out new words — or invent them. The fifth trait, sentence fluency, is the rhythm of language. To learn if students hear the rhythm, teachers may watch how students react to stories read aloud.

Conventions include spelling, capitalization, and grammar — as well as writing from left to right and beginning to write at the top of the page. "Notice and acknowledge these beginning conventions to give your primary writers a legitimate sense of their true accomplishment," she recommends.

/ To Order

Seeing with New Eyes: A Guidebook on Teaching and Assessing Beginning Writers is available from the Northwest Regional Educational Laboratory, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NL-1196-RD, 300 pages, $19.45 prepaid).

Getting Employers On Board Is First Step in Launching Work-Based Programs

Word is spreading that work-based learning — which integrates classroom instruction with structured workplace experiences — benefits students. Since students apply class material, they learn the material more thoroughly. Students also gain social and other occupational skills.

Educators who seek to establish work-based learning programs in their schools can find useful information in a guide by Northwest Regional Educational Laboratory. It offers strategies for soliciting and securing employers' commitments to host student workers and preparing them to work with students. It also includes reproducible "fact sheets" that answer questions employers typically ask about work-based learning programs.

To create a successful program, educators must build a "network" of employers who can potentially host students. One way to begin is to contact employers they know, such as members of vocational education advisory committees or cooperative education partnerships, and ask them to involve their peers in the program. Labor unions and specialized groups, such as minority business councils and women's organizations, may also recommend employers interested in participating.

When approaching employers to participate, be prepared to answer hard questions with concise answers. The guide suggests that educators anticipate questions and concerns about roles and responsibilities business people must assume; the kind of support they'll receive from schools; and how schools will select students to participate.

Educators should mention that employers who participate will receive low-cost labor and the satisfaction of supporting a community program. Employers often choose to participate in work-based learning programs for these reasons, notes the guide.

/ To Order

Employer Recruitment and Orientation Guide is available from the Northwest Regional Educational Laboratory, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NL-1096-RD, 86 pages, $18 prepaid).

Upgraded, "Transition" Math Courses Turn High School Students onto Math

In keeping with the move toward higher standards for students, a number of schools are upgrading their lower level and general mathematics courses to increase student achievement and encourage more students to pursue college preparatory mathematics.

A brief by the Consortium for Policy Research in Education focuses on successful "transition courses" that reflect higher math standards and aim to bridge the gap between basic and college preparatory math classes.

The transition courses, say researchers, enable more students to take challenging and relevant courses later on, learn more, and develop better opinions about math and higher self-esteem about their own mathematical abilities. For example, students who enrolled in "Stretch Regents" courses — Rochester's two-year version of the standard one-year college preparatory course — gained a sense of pride from using the same textbooks used in the one-year course.

"Kids who thought they were poor math students now can see that they can do these things," says one teacher of California's "Math A" course, designed to replace all Grade 9 general math courses. "They're finding they have a talent for it."

These benefits stem from innovations in content and classroom practice, the researchers claim. Transition courses integrate math topics, rather than present unrelated skills for students to master, and place a greater emphasis on "powerful mathematical content" — "the more complex cognitive tasks of understanding, application of knowledge, and reasoning." Students spend less time listening to lectures and more time working in groups and on hands-on activities.

The brief also offers some policy recommendations based on what the researchers see as still-existent problem areas in both traditional and upgraded math classes, including lack of teacher training, ambiguous course objectives, inaccurate student placement, and lingering course "tracking."

To Order

Upgrading High School Math: A Look at Three Transition Courses is available from the Consortium for Policy Research in Education, Graduate School of Education, University of Pennsylvania, 3440 Market St., Suite 560, Philadelphia, PA 19104-3325 (cite order no. RB-19, 8 pages, single copies free).

Integrated Curricula and Community Experts Engage Students in Learning

The quest to make learning meaningful to students has led many schools to experiment with their curricula. Waldo Middle School in Salem, Oregon, has responded by creating the Endangered Species Project, a project that integrates curricula from subjects traditionally kept separate and allows students to learn from resources in the community.

The project begins in life sciences class, where students research an endangered species of their choice. They have a wide variety of resources at their disposal — CD-ROMs, library resources, and expert biologists and conservationists from zoos all over the country. Students communicate with these experts via telephone and the Internet.

"Without these rich resources, the course would lack the depth and realism it has achieved," maintains James W. Kushman in Northwest Regional Educational Laboratory's ongoing School Improvement Research Series. The series synthesizes research on several issues and describes how individual schools are applying that research.

Students follow up their research with a writing assignment in English class. Students develop concepts and argue for the need to save their endangered animal. In mathematics class, students learn how probability relates to genetic variability. Understanding genetic variability is key in preventing species extinction, explains Kushman.

In science class students then develop a "recovery plan" by creating a habitat for the animals to breed in. Students must specify the amount of roaming space their animal needs, the layout of that space, and the budget they'll need to develop it. Students then make group presentations to a hypothetical zoo board of directors, which really consists of regional zoo experts.

"Using zoo professionals and scientists adds credibility and realism to the project and, of course, shows students that careers do indeed exist in this area," comments Kushman.

To Order

School Improvement Research Series X, 1995-96 is available from Northwest Regional Educational Laboratory, 101 S.W. Main St., Suite 500, Portland, OR 97204 (cite order no. NL-1096-RD, 98 pages, $24.95 prepaid).

The Beginnings...

***Education by Charter: Restructuring School Districts* (1988)**
by Ray Budde
It was in this book that Ray Budde named and defined the charter school concept. In case study style, Budde follows a new superintendent as he provides school board and staff with a vision of how to restructure the school district over the course of a decade. Available from Learning Innovations, 617/279-8200 (order no. 9037-L1, 100 pages, $12).

***Redefining Education Governance: The Charter School Concept* (1995)**
by Kathleen McGree
This paper examines the history of the charter school concept, particularly looking at the environment that gave birth to it and the reasons this reform idea has caught on so well in such a short time. Available from SEDL, 512/476-6861 (13 pages, $4.50 plus $2.50 shipping).

A Closer Look...

Chartering New Roads to School Reform:
***The Minnesota New Country School* (1995)**
Rural Audio Journal, Vol. 3, No. 1
Listen in as rural parents and educators in Minnesota, the first state to pass charter school laws, share their experiences. Available from NCREL, 630/571-4800 (order no. RAJ-V3-1, 1 hour, $9.95).

***Freedom and Innovation in California's Charter Schools* (1995)**
by Ronald G. Corwin and John F. Flaherty, Editors
This report focuses on findings from a second survey of the state's charter schools and from a survey of teachers and administrators, examining issues of autonomy and their impact on school innovations, teacher roles and parent participation. Available from WestEd, 415/565-3000 (order no. SWRL-95-02, 135 pages, $16.95).

***From Paper to Practice: Challenges Facing a California Charter School* (1996)**
by Ronald G. Corwin, Lisa Carlos, Bart Lagomarsino, and Roger Scott
This in-depth case study on one San Diego charter school relies on data from interviews, questionnaires, and classroom visits to report on the uncertainties facing many charter schools. Available from WestEd, 415/565-3000 (full report, 104 pages; executive summary, 26 pages; call for price and order information).

Perspectives on Policy...

***Insights on Education Policy and Practice: Charter Schools: Early Learnings* (July 1995)**
Drawing on research findings from early experiments in states such as California, Colorado, and Minnesota, this brief condenses some of the early lessons and highlights the implications for future policy decisions. Available from SEDL, 512/476-6861 (12 pages, $4 plus $2.50 shipping).

***Policy Briefs: Charter Schools: A New Breed of Public Schools* (1993)**
***and Charter Schools Update* (1994)**
These policy briefs report on the status of charter school issues from a national perspective. Available online from NCREL's homepage (http://www.ncrel.org).

***Strengthen School-Based Management by Chartering All Schools* (1996)**
by Ray Budde
Following up his groundbreaking charter school publication, Budde offers a three-year plan for chartering all schools within a district to take full advantage of local reorganization opportunities and benefits. Available from Learning Innovations, 617/ (order no. L-9422, 125 pages, $24.95).

BEST COPY AVAILABLE

Chartering a New Course

<continued from page 2>

some states have granted waivers from these restrictions so that charter school teachers can choose to participate in collective bargaining.

As with any new business, the future success of a charter school is difficult to predict, nearly impossible to guarantee. There are risks for teachers who opt to teach there. Research documents that some new charter schools offer lower salaries than district public schools. Teachers may lose the support of a union. Should a charter school not succeed, there may not be a district teaching job to return to, particularly where relations between district officials and charter school participants are strained. Communities once enthusiastic about charter schools, may change their minds. For some teachers, however, job satisfaction justifies the potential loss of job security.

Regardless of the wording of charter school laws on the books, the benefits and drawbacks experienced by teachers who explore this professional option depend largely on the climate in which they and the charter schools operate. Facilities dilemmas, funding questions, and the presence or absence of long-term support from peers, parents, communities, and district and state education officials determine the realities that teachers face if and when they choose to blaze this new trail in school choice options. Like any business venture, teachers must look at the specifics and make a gamble based on their assessment of the odds for long-term payoffs for themselves and students. Some are going to succeed; others will fail. Unlike private business, the failure will be with public money. One of the key trends to watch will be the public's ability or inability to balance their views of failure — intrinsic to risk-taking and innovation — against their pride in the successes.

On this issue's *R&D Resources* page, we highlight publications that examine aspects of charter schools most important to educators. With the number of charter schools still on the rise, the education research community will undoubtedly continue to investigate the implications for all those involved, not the least of which are teachers.

CED R
2000 L Street, NW • Suite 601
Washington, DC 20036

Non Profit Org.
U.S. POSTAGE
PAID
CEDaR

BEST COPY AVAILAB

(continued from p. OF-2)

AEL Information (free)

☐ AEL Information Packet

☐ AEL Products & Publications Catalog

☐ ***Teaching Creative Writing in the Elementary School***, by Christopher Essex, ERIC Clearinghouse on Reading, English, and Communication, 1996, ED391182

Noting that most children enter school with a natural interest in writing, this digest discusses how elementary school teachers can become actively involved in teaching creative writing to their students. The digest considers several reasons for teaching creative writing, provides practical suggestions from other teachers about teaching story writing, reports on the effectiveness of peer feedback, and offers some ideas about publishing children's writing.

☐ ***The Role of the Rural Community College in Rural Community Development***, by Jonathan D. Holub, ERIC Clearinghouse for Community Colleges, 1996, ED391558

Rural community colleges have an important role to play in the economic development of their communities and in preparing community members for technological, economic, and societal changes. Community-based programming is one tool used by colleges to become aware of local problems. Colleges collaborate with citizens, leaders, and community-based organizations to identify and resolve major community issues. The community-based programming model has been effectively employed to combat illiteracy, one of the most pervasive problems facing rural communities. Specific strategies employed by the Appalachia Regional Steering Committee to address the problem of illiteracy include: (1) policy strategies, such as identifying and working with community leaders to become involved in community development activities; (2) dispositional strategies, including promoting equal opportunity for rural adults and establishing peer support and career planning activities; (3) situational strategies, such as lobbying for reductions in transportation and education costs; and (4) institutional strategies, including the development of cooperative partnerships at all levels. Finally, another pressing issue facing rural communities is educational access. Rural community colleges are providing technological learning systems such as distance education programs and instructional television broadcast channels to increase educational and employment opportunities.

☐ ***Use of Computer-based Technology in Health, Physical Education, Recreation, and Dance***, by Daniel D. McLean, ERIC Clearinghouse on Teaching and Teacher Education, 1996, ED390874

The overall effect of technology's impact on health, physical education, recreation, and dance education in the areas of research, classroom, teaching, and distance education is not yet fully assessable. Yet, the presence of technology in so many different aspects of the profession makes it important to more clearly recognize and appreciate its current and potential role. This digest, organized into two sections, focuses on computer-based technology as it relates to health, physical education, recreation, and dance education in the areas of teaching and distance education. The first section, "Classroom Utilization of Technology," discusses specialized software, multimedia and CD/ROM, computer-assisted instruction, Internet/World Wide Web, local area networks, and computers and satellites. The second section, "Next Steps for Incorporating Technology in Instruction," recommends that HPERD professionals perform an inventory of training, hardware, and software available within their own organizations; find a "techno-buddy" within the organization; and welcome students' willingness to demonstrate what they know about and what they can do with technology. Nine selected World Wide Web URLs (addresses) are included.

☐ ***Work Teams in Schools***, by Lori Jo Oswald, ERIC Clearinghouse on Educational Management, 1995, ED391226

Quality work teams that are based on W. Edwards Deming's business-management theories have proliferated at the school and district levels to handle problem solving and decision making. Teams are said to build stronger relationships among those involved in education and, ultimately, to benefit students because more people with broader perspectives help to shape a stronger educational program. This digest explains why schools are using quality teams. It also identifies the most common types of teams, the factors necessary for success, the best strategies for forming a team, and common reasons for their failure. Teams are most likely to be successful when members practice good communication skills and understand the team's mission, their roles, and the group process.

Please add my friend or colleague to your mailing list: (please print legibly)

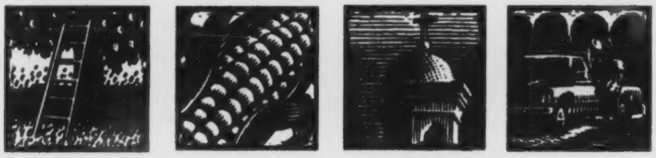
Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____



Low-Cost Books and FREE Resources on **Mexican American and Migrant Education**

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

☐ ***Children of La Frontera: Binational Efforts to Serve Mexican Migrant and Immigrant Students.*** Edited by Judith LeBlanc Flores, foreword by Eugene E. Garcia, 1996, 352 pp., soft cover ISBN 1-880785-12-9, $18.00.

Dr. Flores invited over 20 respected practitioners and scholars to describe Mexican migrant and immigrant children, the political context within which they live and work in the United States, their educational needs, and current efforts to serve them in the U.S. and Mexico. The 20 chapters are divided into four sections: (1) Historic and Current Conditions for Mexican Migrant and Immigrant Education; (2) Federal and State Programs; (3) Working in Districts, Schools, and Classrooms; and (4) Working with Families. The book also includes essays by migrant students. "... [T]he most comprehensive work to date on the emerging binational education effort." *MEMO* (Spring, 1996).

☐ ***Doing Our Homework: How Schools Can Engage Hispanic Communities.*** By Andrea B. Bermúdez, 1994, 92 pp., soft cover, ISBN 1-880785-11-0, $12.00.

To address the high dropout rate of Hispanic students, some educators discovered the powerful role parents—including parents who speak little or no English—can play in advancing educational goals. Dr. Bermúdez (Univ. Of Houston, Clear Lake) describes the changing nature of parents' role in U.S. education since the end of the nineteenth century—a time when the country was undergoing another large influx of immigrants. Based on her own research and the research and practice of others, Bermúdez describes training programs for parents and teachers, model programs for home-school-community partnerships, and collaborations between institutions of higher education and school systems.

☐ ***Thorough and Fair: Creating Routes to Success for Mexican-American Students.*** By Alicia Salinas Sosa, 1993, 63 pp., soft cover, ISBN 1-880785-10-2, $10.00.

In this guide, Dr. Alicia Salinas Sosa (Univ. of Texas, San Antonio) explains why providing bilingual services is a necessary but incomplete response to the needs of Mexican American students. Educators must recognize and remove other institutional barriers to equity and excellence, i.e. misuse of tracking and ability grouping, shortcomings in policies governing assessment and use of assessment results, and the tendency to overlook special needs of women and minorities in math and science programs. Sosa provides clear guidance about how to create structures at every level—from classroom to state department—that will increase the success of this growing group of bicultural students.

Free Digests from ERIC/CRESS

Check your selections and fill out the address form on page OF-1.

Mexican American Education

☐ ***Facilitating Postsecondary Outcomes for Mexican Americans.*** J. LeBlanc Flores (1994), EDO-RC-94-4

☐ ***Forging Partnerships Between Mexican American Parents and the Schools.*** N. F. Chavkin & D. L. Gonzalez (1995), EDO-RC-95-8

☐ ***Hispanics in Higher Education: Trends in Participation.*** J. Chahin (1993), EDO-RC-93-05

☐ ***Integrating Mexican-American History and Culture Into the Social Studies Classroom.*** K. Escamilla (1992), EDO-RC-92-5

☐ ***Mexican American Women: Schooling, Work, and Family.*** F. I. Ortiz (1995), EDO-RC-95-9

☐ ***Mexican Immigrants in High Schools: Meeting Their Needs.*** H. Romo (1993), EDO-RC-92-08

Migrant Education

☐ ***Health Problems Among Migrant Farmworkers' Children in the U.S.*** G. Huang (1993), EDO-RC-93-01

☐ ***Instructional Strategies for Migrant Students.*** V. Menchaca & J. Ruíz-Escalante (1995), EDO-RC-95-10

☐ ***Literacy Education for Adult Migrant Farmworkers.*** K. J. Bartlett and F. O. Vargas (1992), EDO-LE-91-05

☐ ***Migrant Farmworkers and Their Children.*** P. Martin (1994), EDO-RC-94-7

☐ ***Reauthorized Migrant Education Program: Old Themes and New.*** A. Wright (1995), EDO-RC-95-1

Free Briefs for Latino Parents

These typeset articles are ready to cut and paste into your newsletter, newspaper, or periodical. Clearly and briefly, each article addresses a child development or education topic of concern to parents. They are available free (limit one copy of each set per order). To order, check the set(s) you wish to receive, and fill out the address form on page OF-1.

☐ Brief articles written especially for Latino parents (Spanish with English translations)

☐ Brief articles for a general audience of parents (English only)

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list.

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants. Free.

"Dimensions" Let Teachers Actively Engage Students in the Learning Process

Robert Marzano and Debra Pickering of the Mid-continent Regional Educational Laboratory offer teachers a way to think about instruction that can help actively engage students in the learning process. In an audiotape produced by the Association for Supervision and Curriculum Development, Marzano and Pickering describe five key aspects of this thinking, which they call "Dimensions of Learning."

Dimensions 1 and 5 concern improving student attitudes and perceptions. Students' beliefs and attitudes about their ability to achieve, the usefulness of what they are learning, and the extent to which they feel accepted, safe, and comfortable in the classroom greatly affect how well students learn. Effective teachers use a number of strategies to help students overcome negative attitudes, say the researchers. For example, they might ask students if they're lost, open windows when students are falling asleep, or greet students by name at the door.

Dimension 2 focuses on helping students acquire knowledge and skills. It prompts teachers to think about the different kinds of knowledge students need. This distinction is not trivial, says Marzano, because the type of knowledge promoted by the subject matter affects how teachers instruct and assess students. Whereas literature and social studies tend to be fact- and information-based, science knowledge is more procedural.

Dimensions 3 and 4 are about helping students extend and refine knowledge and use knowledge meaningfully. To do so, teachers can ask students to compare and contrast concepts, classify information, and apply knowledge to solve problems.

Ordering information: *Presentation Digest: Dimensions of Learning* is available from the Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314-1453 (cite stock no. 295195V84, 90 minutes, $24.95 plus $2.50 handling charge, prepaid).

More to Music than Meets the Ear

School boards that are thinking of cutting arts education as a way to focus limited funds on "the basics" may want to think again. Several recent studies and reports from schools have shown that arts instruction improves abstract reasoning skills and can raise standardized test scores in mathematics and reading. For example, scientists believe that music stimulates parts of the brain "critical to the development of mathematics skills, logic, perception, memory, and communication among brain regions," as well as parts used for "decoding complex ideas."[1]

- Three-year-olds in an inner-city day care center who received 30 minutes of music instruction everyday performed 35 percent better than other children in their ability to put puzzles together—a standard test of mathematical reasoning.[2]
- A follow-up study of preschoolers whose spatial-temporal IQs improved 46 percent after music training showed that these effects persisted as the children aged.[1]
- College students who listened to a Mozart piano sonata for 10 minutes before testing increased their IQ scores in spatial reasoning at least eight points.[1,2]
- First graders who received formal training in music and the arts improved in reading, attitude, and behavior, and far surpassed their peers in mathematics. This was true even for children who had been significantly behind their peers in kindergarten. Students receiving a second year of arts training performed better than students with just one year of training, but both arts groups scored better than children receiving no arts training.[3]
- A study using magnetic resonance imaging showed that subjects who received early music training had a significantly larger corpus callosum, the bundle of nerves that carries messages between the brain's left and right hemispheres.[2]
- An elementary school in Aiken, South Carolina, raised basic skill scores from the lowest

[continued on page L-7]

FOCUS ON INSTRUCTION

Featuring articles from teachers in the four AEL states—this issue, West Virginia

Civic Organizations Find Informative Speakers in Their Local Schools

Is your civic organization looking for informative, entertaining, free programs—a speaker for its next meeting, perhaps? If you're in Mercer County (WV), your speaker may be as close as your local school. That's right—the Mercer County Education Association recently initiated a speaker's bureau called "Educators Reaching Out to Community," an idea borrowed from Brooke County (WV).

To determine the level of support for the idea, the association presented the plan to the school district superintendent, school building representatives, and faculty senate chairpersons. AEL supported their effort by supplying information on the topic of "community support through public relations." The idea caught on, and the association made the program known through mailings to a list of organizations supplied by the local chamber of commerce.

Teacher volunteers are making the concept quite a success by sharing their expertise on a variety of topics. The superintendent lends support by offering professional leave for teachers' daytime speaking engagements and continuing education credit for their evening presentations.

Contributor: Sue Widener, teacher, Glenwood Elementary School, Rt. 1, Box 460, Princeton, WV 24740; 304/425-2445.

After-School Program Offers Franklin Students Much-Needed Support

Recreation, help with homework, tutoring, computer time, and snacks—these are all part of the extended-day program offered to students at Franklin Elementary School in Franklin, WV. A spring 1996 survey revealed the need for such a program at Franklin. The School Day-Plus Program is supported in part by funds from West Virginia's Department of Education and its Department of Health and Human Resources. Parents also pay a minimal monthly fee.

Available to students in Grades 2 through 6, the program employs a site coordinator/teacher, physical education leader, and an aide. Student tutors are recruited from the high school and local 4-H clubs.

Contributor: Sue Harper, teacher, Franklin Elementary School, Box 848, Franklin, WV 26807; 304/358-2206.

Preston High's Student Services Team Gets Kids Back on Track

Preston High School's (Kingwood, WV) Student Services Team uses a unique, three-phase approach to alternative education. Phase I involves identification and intervention. After identifying those students at risk of failure due to poor grades, attendance, or behavior, we provide them with basic services such as attendance monitoring, remediation, mentoring, psychological services, or testing for special programs. We hope eventually to develop this into a school-based social service center where drug counseling, parenting classes, and adult literacy services are provided.

Phase II of the program offers an alternative classroom setting for students who need help in specific areas. This resource classroom operates during regular school hours.

Phase III involves the district Alternative Education Program, a night school that operates two evenings a week. The program coordinator works with schools in the district to help identify children who may need these services. Also, students who reenter the school system after dropping out or after expulsion must first apply through the alternative education program.

The three-phase program is working well. Even though we are just getting started and our School Services Team is putting in many hours of overtime, we feel good about our progress.

Contributor: Anita Mitter, teacher, Preston High School, 400 Preston Drive, Kingwood, WV 26537.

Women and Tyranny in American Literature: A History and Literature Interdisciplinary Unit

Students often believe that what they learn in one class has no connection to another class. When I provide background material in literature class, my students will sometimes say, "Hey, this is English, not history class."

One way that I've found to make the connection between English and history is to use a unit I wrote for a summer reading seminar on tyranny and freedom. By combining history from the women's movement and the Holocaust with American literature, the unit gives students an understanding of the types of tyranny reflected in literature that women face in everyday life. The unit helps students:

- recognize the sometimes subtle nature of tyranny;
- identify the effects of poverty and loneliness;
- examine the historical role of women regarding issues of intimacy, relationship, community, independence, status, and control; and
- realize that not only formal education but also one's history, circumstances, and culture determine intelligence.

By reading actual accounts of Nazi tyranny, students understand how tyrants can dehumanize others and strip them of human dignity.

I assess the unit through class participation, role-play, essays, journal entries, oral presentations, and a performance of the play, *Trifles*.

Combining history and literature works well for my American literature and English classes. Students knew little about the women's suffrage movement and the Holocaust when we began, but the literature helped give history a human face, making it more understandable. The class even inspired them to write their own play about tyranny and freedom, to be published by Lynchburg College. A lot of progress since I first heard, "Hey, this is English, not history."

Contributor: Vickie Skavenski, teacher, Circleville High School, Circleville, WV 26804; 304/567-2515; 304/567-2695 Fax

We appreciate the efforts of Joyce Hoffman, West Virginia's teacher representative on AEL's Board of Directors, in obtaining the articles that appear in this issue of Focus on Instruction.

[*continued from page L-5*]

25 percent to the top 5 percent in six years by integrating arts instruction into the curriculum.[4]

- An elementary school in Charleston, South Carolina, that serves a low-income, racially mixed student body became the second highest scoring school in the county on standardized achievement tests after implementing an intensive arts curriculum. The students, one third of whom had diagnosed learning problems, were second only to students at a magnet school for the academically gifted. In addition, daily average school attendance has risen to over 99 percent.[5]
- Three countries with students who score highest on international mathematics and science tests—Japan, Hungary, and the Netherlands—include intensive music and arts training in their curricula. All Japanese students must learn to play an instrument, sing in a choir, and take sculpture and design.[4]

1. Hendrick, B. (1996). Melody for the mind. *The Brain in the News,* 3(7), p. 7.
2. Shreeve, J. (1996, October). Music of the Hemispheres. *Discover, 17*(10), pp. 90-100.
3. Gardiner, M., Fox, A., Knowles, F., & Jeffrey, D. (1996). Learning improved by arts training. *Nature, 381*, p. 284.
4. Kearney, P. (1996). Brain research shows importance of arts in education. *The Brain in the News,* 3(8), p. 1.
5. Burgard, R. (1994). *The Ashley River Elementary School.* Beaufort, NC: Burgard Associates.

Tennessee Legislation Addresses ADD

Tennessee has passed legislation, House Bill 2431, mandating ADD training workshops for teachers. The new law requires that "the commissioner shall provide for multisensory interactive training for teachers to develop awareness and knowledge of students with attention deficit disorder (ADD) and hyperactivity, and how to identify and best deal with and instruct such students."

INSIDE AEL

Involved in Classroom Research?

Contact AEL to Network With Others

Classroom teachers engaged in action research often have difficulty finding time to share their progress, questions, ideas, and problems with others. Although AEL cannot create time for teachers, it can help by linking them with other teacher action researchers. If you are involved in a classroom-based study or help teachers conduct such research, you are invited to participate in AEL's action research listserv, "aelaction."

In this free, facilitated forum for sharing experiences related to action research, AEL plans to link the practical wisdom of teachers with current knowledge from research. Classroom teachers involved in action research, along with college and university faculty members and administrators fostering such efforts, are encouraged to subscribe. All you need is access to the Internet e-mail system. AEL will facilitate the group by entering news about action research, responding to questions, linking subscribers to resources, and networking online.

Next summer (1997), AEL will host a regional conference where action researchers can share findings, discuss problems, and discover solutions.

If you are interested in getting in on the "action," contact Jane Hange at AEL or e-mail hangej@ael.org.

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit Org.
U.S. POSTAGE
PAID
CEDaR

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board:
Diana Bowman
Soleil Gregg
Kimberly Hambrick
Pat Hammer
Jane Hange
Marian Keyes
Pat Penn
Beth Sattes

OERI

VELMA MITCHELL
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 16
No. 1
•
Spring
1997

Special Issue

Respectful Learning Environments

This past spring, AEL conducted an Education Issues Forum in each of the Region's four states. Together, the forums convened 150 principals, teachers, parents, community members, students, and superintendents from rural, urban, and suburban areas to discuss issues facing local schools as they strive to provide quality education for all children.

More similarities than differences were found in perceptions of schools across groups and communities. Diverse conversations took place across the sites, but participants in all four states talked at length about school-parent-community relationships. All seemed to want improved relationships—seen as key to solving problems associated with classroom disruptions and incidents of school violence. The diverse student population that schools serve today also appears to have made the delivery of education services a more complex endeavor. Some schools have created new education and social service programs to meet diverse local needs.

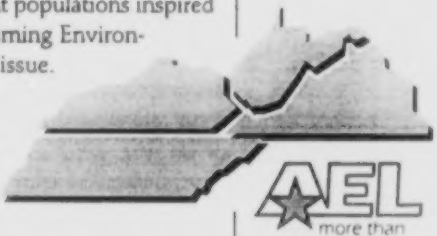
Interest in such issues across the forums is evidenced in these highlights of findings:

- Participants felt good about the schools in their communities that exhibit a child-centered, caring nature.
- Parents and educators alike want improved school communications and parent involvement.
- Some schools provide parenting education to increase parent involvement.
- In all four states, the inclusion of special education students in the regular classroom was a struggle that some schools had overcome, but others viewed as still problematic.
- While viewing alternative education programs as generally successful, participants believed they create some problems as well.
- An increasingly culturally diverse population is challenging to educators in Kentucky, Tennessee, and Virginia.
- Participants expressed concern about school safety issues; participants perceive that steps taken to remedy the problems have met with success.
- Participants perceived that school counselors today are expected to play many roles in schools across the Region.
- Participants seemed to think schools that focus on student achievement are successful at improving student performance.

The focus on school-parent-community relationships and diverse student populations inspired us to choose Respectful Learning Environments as the theme for this issue.

In this issue:

PDK Survey Compares Attitudes of Teachers and Public, p. 2
Educators Urged to Trade Traditional Discipline for a "Community" Classroom, p. 2
Policy Brief Looks at School Programs to Prevent Violence, p. 3
Book Encourages Motivation and Responsibility in the Classroom, p. 4
Stemming Youth Violence: Recommendations to Policymakers, p. 6
Rural Residents Want Safe, Orderly Schools That Focus on Teaching the Basics, p. 7
Directory of Teaching and Training Programs Geared Toward Curbing Prejudice, p. 8
Programs and Policies Offer Schools Many Different Ways to Prevent Student Violence, p. 8
Community Development Efforts Recommended to Combat Violence and Substance Use in Rural Areas, p. 9
Related Organizations, Programs, and Resources, p. 10
Summer Professional Development Opportunities from AEL, p. 11



AEL
more than
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

PDK Survey Compares Attitudes of Teachers and Public

In 1984 and 1989, teachers blamed low salaries for the exodus of teachers from the profession. Today, for the first time, teachers point to discipline problems as the main reason their colleagues leave teaching, according to Phi Delta Kappa's (PDK) third poll of teachers' attitudes toward public schools.

The survey was developed to compare attitudes of teachers and the public, as well as to compare changing teacher attitudes over time. Survey results were published in the November 1996 *Phi Delta Kappan*.

The survey revealed that teachers see lack of parental support as the biggest problem facing schools. A previous PDK survey of the general public found that drug abuse topped the public's list of schools' number-one enemy.

Teachers also were asked to rate six purposes of public education. In first place was preparing students to become responsible citizens (84%), followed by helping people become economically self-sufficient (63%); increasing people's happiness and enriching their lives culturally and intellectually (35%); promoting cultural unity among all Americans (31%); improving social conditions (29%); and minimizing current inequities in education for certain minority groups (24%).

The survey of the public also ranked citizenship and economic self-sufficiency as numbers one and two, but it placed cultural unity next, followed by improving social conditions, increasing happiness, and minimizing inequities.

The mail survey of 2,000 public school teachers nationwide was conducted in May 1996. For more information on the survey, contact PDK's Carol Langdon at 800/766-1156.

Educators Urged to Trade Traditional Discipline for a "Community" Classroom

What are your long-term goals for your students? What would you like them to be—to be like—long after they've left you?

When asked such questions, educators usually describe a certain kind of person—caring, happy, and responsible—writes Alfie Kohn in his latest book, *Beyond Discipline: From Compliance to Community*, published by the Association for Supervision and Curriculum Development. Some educators mention intellectual development, but in the broadest sense—curious, creative, lifelong learners. Kohn knows of no one who has said, "I want my kids to obey authority without question, to be compliant and docile." However, many of the classroom management programs in use today are designed as though that were the goal, he maintains.

Beyond Discipline promotes a "community" classroom in which traditional systems of restrictions and punishment—along with some new ones that focus more on rewards—are, for the most part, abandoned. In this classroom, teachers work **with** students—versus doing things **to** them (punishment)—to create an environment where everyone trusts and cares about one another. Kohn describes this classroom as a democratic community where students play an active role in decision making.

He argues that educators' first question should be, "What do children need?" and then, "How can we meet those needs?" rather than "How do I get children to do what I want?"

Citing supporting research, Kohn claims that punishment and reward systems may produce compliant children, but they do not teach children much about becoming responsible, caring people. Punishment, he says, teaches a disturbing lesson:

> The child learns that when you don't like the way someone is acting, you just make something bad happen to that person un-

> til he gives in. . . . Much of what is disturbing about some children's behavior suggests that they have learned this lesson all too well—possibly from us. In the real world, getting children to focus on what will happen to them if they are caught misbehaving simply is not an effective way to prevent future misbehavior because it does nothing to instill a lasting commitment to better values or an inclination to attend to others' needs.

Rewards, like punishment, says Kohn, are a means of getting temporary compliance, and he cites findings that "children who are frequently rewarded tend to be somewhat less generous and cooperative than those who aren't"—a result some teachers and parents find shocking.

"Rewards, like punishment, can only manipulate someone's actions. They do nothing to help a child become a kind or caring person," Kohn declares. But "carrots" are more desirable than punishment, which may explain the appeal of many of the new discipline programs. One major purpose of the book is to question whether these new discipline programs "represent a real departure from what they claim to replace."

Kohn does not imply that the new discipline programs have nothing to offer, but he maintains that "most of them are remarkably similar to the old-school approach in their methods—and their goals," since most of them focus on getting compliance.

To create a sense of community in the classroom, Kohn recommends that educators:

- allow students to have an active role in decision making;
- have students construct moral meaning—help them figure out, for themselves and with each other, how one ought to act;
- engage the class in discussion about the "ways we want our class to be" and how that can be made to happen (the alternative to concrete rules);
- hold class meetings in which students can feel free to air their feelings, have open discussions, and engage in problem solving and decision making; and
- promote a feeling of safety, both physical and emotional, to help every student feel at ease and to minimize the chance of students being ridiculed by other children or by adults.

Kohn also discusses two common school practices that can destroy a sense of community:

- competition, including "spelling bees, charts that rank students against each other, grading on a curve"; and
- grouping students by assumed ability. The most extreme versions of this—segregation of students with special needs or those lucky enough to be deemed "gifted"—are likely to have the most extreme effects.

Ordering information: *Beyond Discipline* is available from the Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA 22314-1453; 800/933-2723 or 703/549-9110 (stock no. 196075; $14.95 ASCD member; $17.95 nonmember).

Policy Brief Looks at School Programs to Prevent Violence

The democratic process depends on the practice of civility to negotiate differences among individuals and groups. However, disputes and insults increasingly trigger violent responses, especialy among the young. Clearly, our youth need to learn nonviolent ways to settle differences. This issue of *Policy Briefs* reviews promising school-based violence-prevention programs shown to be effective through rigorous scientific evaluation, offers tips for developing and implementing schoolwide programs, and discusses implications for education policymakers. *Policy Briefs: School-Based Programs to Promote Safety and Civility*, by Soleil Gregg, will be available June 1, 1997 ($2).

Book Encourages Motivation and Responsibility in the Classroom

"Classroom management and discipline are some of the most difficult components of teaching," says Nancy Prothero, director of research at the Educational Research Service (ERS). Last fall, ERS announced publication of a resource designed to help. "It combines research findings and informed opinions from the professional literature with classroom-tested techniques."

Classroom Management to Encourage Motivation and Responsibility offers the latest thinking about the various strategies teachers can use to handle disruptive behavior.

The following excerpts from the book focus on the principal's effect on school climate, the management of diverse classrooms, and training students in self-management.

Principal's Role Crucial in Setting School's Climate

A school climate that conveys order, a sense of community, and higher expectations of behavior for both staff and students has a positive effect on student learning. As instructional leader in the school, the principal can be a strong force for creating an environment that encourages high levels of achievement.

The principal can promote schoolwide management and positively affect the school's climate by

1. cultivating an organizational structure that promotes values, beliefs, and rules that correspond with the school's goal, as stated in the discipline plan;
2. communicating high expectations for students to both teachers and students;
3. expecting teachers to handle routine discipline problems;
4. helping teachers to refine instructional skills;
5. providing opportunities for teachers to learn about effective management strategies and to work with fellow teachers to improve their management techniques;
6. supporting teachers in their daily work;
7. working together with teachers and parents to help students assume responsibility for their actions;
8. being visible in classrooms and halls, and showing interest in everything that goes on at the school;
9. accepting responsibility for identifying and addressing problems that act as barriers to developing and maintaining an orderly school climate; and
10. modeling prosocial behaviors—such as respecting others and working together to resolve conflicts—on a daily basis.

Management in Today's Diverse Classroom

As classrooms become more inclusive of students with different ability levels and different cultural or socioeconomic backgrounds, effective teachers adapt their management styles to the more diverse student populations. Although the basic management strategies remain the same, teachers often need to make adjustments and vary certain procedures.

Effective classroom managers make adjustments based on their knowledge that the ethnic backgrounds of students influence their learning patterns, perceptions, communication styles, and behavior. For example, in the United States it is usually expected that students will maintain eye contact when interacting with teachers. In some other cultures, prolonged eye contact may signify disrespect or even defiance. Students from different cultures may also have widely varied perceptions of what constitutes appropriate personal space. Some students are unfamiliar with the custom of raising one's hand to answer a teacher's question. When these students call out in class, they may appear to be deliberately misbehaving but, in fact, they are simply behaving as they have learned (ERS, p. 30).

For classroom management in culturally diverse classrooms to be effective, teachers need to state rules and expectations as clearly as possible, make sure that students understand the rules, and be aware that what seems to be misbehavior may be a failure in communication. Also, it is important for teachers with ethnically diverse classrooms to learn something about the cultures represented by their students. Increased teacher attention to patterns may assist with correct interpretation of behavior, followed by an appropriate response to that behavior. It is important to keep in mind, however, that variation within a culture can be as great as variation across cultures. Students are individuals who vary in terms of personality, learning patterns, and behavior—regardless of heritage (ERS, p. 34). Although knowledge of cultural patterns can be helpful, educators should not simply assume that individual students will possess certain characteristics based on membership in a cultural group.

Behavior and language considered inappropriate for the classroom should not be tolerated, even if it is the norm in the student's home and community. High expectations for all students are critical to promoting student success.

Students are characterized not only by diverse backgrounds, but also by a wide range of ability levels. Consequently, teachers must provide supplementary instruction—for higher achievers to avoid boredom and for lower achievers to avoid frustration—all the while ensuring that the needs of the average student are not overlooked. Class activities that are flexible in structure allow students to work at their own pace. When working with lower achievers, teachers sometimes need to break instruction into short segments, work closely with students to help them develop or improve their study skills, and carefully monitor understanding of the lesson (Arnold and Dodge, 1994).

In brief, effective teachers in today's diverse classrooms possess a high tolerance for individual differences and a willingness to "go the extra mile" to help each student succeed.

Teaching Self-Management Skills

Some students need to learn behavior management skills. The book discusses a variety of strategies for helping students develop such skills. Each approach described here is designed to achieve a distinctive goal related to self-management:

- Sometimes teachers need to help particular students gain control over specific behaviors. This involves either (1) targeting a specific behavior for improvement (such as raising one's hand before speaking) or (2) targeting a behavior for elimination (such as losing one's temper). The instructor teaches students techniques for managing their behavior: how to record the occurrence of behavior (self-monitoring) or how to use verbalization as a prompt (self-instruction).
- Self-management skills can be strengthened by giving students a role in solving classroom conflicts. Students might be selected for training in conflict resolution (peer mediation programs), or all classmates might be involved in helping reach a solution to a problem facing the class, school, or community (classroom meetings).
- Giving students more say in decision making can be practiced by providing students with choices. For example, allow students to make choices about what, how, or when they will learn.

Arnold, J. B. and Dodge, H. W. 1994. "Room For All." *The American School Board Journal,* Vol. 181, No. 10: 22-26.

Educational Research Service. 1991. Culturally Sensitive Instruction and Student Learning. Arlington, VA: Author.

Ordering information: *What We Know About Classroom Management to Encourage Motivation and Responsibility* is available from Educational Research Service, 2000 Clarendon Boulevard, Arlington, VA 22201; 703/243-2100 (cite stock #NA-0222, $18.00; add the greater of $3.50 or 10% of total sale to cover postage and handling; quantity and subscriber discounts available).

ERS is sponsored by seven national school management associations: American Association of School Administrators, American Association of School Personnel Administrators, Association of School Business Officials, Council of Chief State School Officers, National Association of Elementary School Principals, National Association of Secondary School Principals, and National School Public Relations Association.

Excerpts used with permission of ERS.

Stemming Youth Violence: Recommendations to Policymakers

States and districts need to develop policies for dealing with youth violence, even if such a problem is not currently apparent, according to a report from the Education Commission of the States. The report says policies must be long-term, coordinated, and comprehensive—focused on the individual, family, school, and community levels—and include prevention as well as intervention and rehabilitation strategies.

This and other recommendations result from a series of statewide meetings in five states to discuss policy alternatives for dealing with violence in and around schools. Representatives of several agencies—criminal justice, education, mental health, social services, law enforcement, and substance abuse—as well as community members attended.

The recommendations found in ECS' March 1996 report, *Youth Violence: A Policymakers' Guide*, outline the various facets of such a policy approach. Many of the recommendations are applicable to both the state and school district levels.

Gather information. Collect baseline data from every school about the frequency and kinds of violent acts committed, who commits the acts, what prevention and intervention policies currently exist, and what approaches are used to deal with violence.

Share information. Share information about youth and school violence among schools, school districts, and law enforcement agencies. Specific guidelines must be followed when sharing information so as not to infringe upon a student's right to privacy.

Concentrate on alleviating risk factors and promoting protective factors. Identifying and addressing risk factors for violence can help target prevention efforts where they are most needed and help prevent future youth violence. Risk factors that can be associated with youth violence include teen pregnancy, drug and alcohol abuse, child abuse, and poverty. Strengthening protective factors that inhibit violence, such as linking at-risk youth with adult mentors, can also help prevent future incidents of violence.

Research the effectiveness or ineffectiveness of various strategies. Author Richard Mendel reviewed a wealth of scholarly reports on the causes and correlates of delinquency and existing research examining how well various approaches succeed. He writes that repeated tests show certain strategies to be ineffective, including shock incarceration (i.e., boot camps); short-term, quick-fix job training; and traditional psychotherapy and behavior modification. "[America] cannot solve crime . . . solely through deterrence or by 'shocking' trouble-prone youth or 'scaring them straight,'" he says.

Provide integrated family support services. Services to help alleviate risk factors—such as family violence and inadequate nutrition, health care, and child supervision—must be coordinated to eliminate duplication of efforts and the damaging effects of turf battles.

Provide classes to enhance parenting skills and family relationships. According to a panel of experts who met at the National Summit on Youth Violence in 1994, "programs that attempt to work with and modify the family system of a high-risk child have great potential to prevent the development of aggressive and violent behavior."

Foster school-family/community cooperation and collaboration. Efforts to bring the school into the community and vice versa can help broaden prevention efforts, gain support from parents and the broader community for policy actions, and provide information about family and community needs and ideas about policy actions.

Identify risk factors and start intervention efforts early. Elementary schools need counselors as much as, or more than, high schools. Violent teens almost always had serious behavior problems in early childhood, Mendel notes. Other experts on youth violence argue that children as young as third and fourth grade need opportunities to belong to groups with positive effects, such as Little League, Scouts, and after-school clubs and activities.

AEL Order Form

☞ Pull out ✍ Fill out ☒ Mail back

Use this form to order materials from AEL, as well as from the ERIC Clearinghouse on Rural Education and Small Schools. Please check (✔) your selections and complete the shipping information below. **Be sure to include payment for priced items.**

Shipping information: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Daytime phone or e-mail:

____

(in case we have a question about your order)

Postage Required

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

AEL Products

☐ *Preventing Antisocial Behavior in Disabled and At-Risk Students* (S. Gregg, 1996).

Concerns about school violence and safety have prompted many states to adopt strict new discipline policies and to create alternative schools for disruptive students. This issue of *Policy Briefs*—the fourth in a series on Attention-Deficit/Hyperactivity Disorder (ADHD)—examines risk factors that contribute to the development of antisocial behavior as well as protective factors that help children become resilient to risk, especially children with ADHD and learning disabilities. It also presents a model that promotes prosocial behavior and suggests considerations for preventive practice and policymaking. (12 pp., $2)

☐ *Promoting Safe Schools: Information Search Package* (AEL, 1996).

This information package contains a variety of current resources on promoting safe schools and is an excellent reference for educators, policymakers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources. (178 pp., $15)

☐ *Putting the Pieces Together: Comprehensive School-Linked Strategies for Children and Families* (U.S. Department of Education, Regional Educational Laboratory Network, 1996).

This guidebook for schools, families, and communities focuses on partnerships that help children, families, and neighborhoods succeed. The ideas presented can help schools and their partners at various stages of program design, implementation, or modification. A resource for planning and doing, the guidebook can help partners pull together unique, creative responses to the conditions children and families face. (98 pp., $8)

FREE ERIC Digests

These easy-to-read, informative digests summarize the education literature on a specific topic. Each digest, usually two pages, includes a reference list. Most ERIC Digests can also be accessed online at: http://www.ed.gov/databases/ERIC_Digests.

☐ *Charting New Maps: Multicultural Education in Rural Schools* (ERIC Clearinghouse on Rural Education and Small Schools, 1992)

The United States is one of the most ethnically and culturally diverse nations in the world. This circumstance holds implications for education, even in places where the local population is not very diverse, as often happens in rural areas. This Digest briefly reviews the concepts of "culture" and "multicultural education" and considers the relevance of multicultural education for rural schools, where neither ethnic nor cultural diversity is great. It also highlights outcomes of several studies of multicultural education.

☐ *Countering Prejudice Against American Indians and Alaska Natives Through Antibias Curriculum and Instruction* (ERIC Clearinghouse on Rural Education and Small Schools, 1996)

One result of the reform movement in U.S. schools has been the development of an antibias perspective in curriculum and instruction. This Digest describes current inadequacies in teaching about Native Americans—even when teachers are making an effort to portray American Indians and Alaska Natives respectfully—and suggests ways to avoid common pitfalls. The Digest provides guidelines for detecting bias toward Native Americans in the curriculum and offers a brief list of Native American-controlled publications and resources.

☐ *Culturally Responsive Curriculum* (ERIC Clearinghouse on Teaching and Teacher Education, 1994)

Curriculum that is culturally responsive capitalizes on students' cultural backgrounds rather than attempting to override or negate them. This Digest presents some characteristics of culturally responsive curriculum resources, outlines guidelines for assessing instructional materials for cultural bias or insensitivity, and provides a list of selected resources available to classroom teachers and other educators.

☐ *Family Involvement in Early Multicultural Learning* (ERIC Clearinghouse on Elementary and Early Childhood Education, 1995)

Recent studies suggest that the intimate involvement of parents and teachers with young children provides natural opportunities for modeling, guiding, and nurturing positive racial, ethnic, and cultural attitudes and perspectives. Fostering young children's multicultural understanding can be accomplished naturally through family involvement in children's care and education on several levels. Families and teachers can prepare the foundation for multicultural sensitivity by creating family-school learning experiences in the early years that enable children to understand and appreciate the value of cultural diversity. This Digest discusses parent education and support, school-family curriculum, parent-teacher partnerships, and multicultural resources.

☐ *Forging Partnerships between Mexican American Parents and the Schools* (ERIC Clearinghouse on Rural Education and Small Schools, 1995)

According to the Bureau of the Census (1994), approximately 13 million Mexican Americans live in the United States. In a review of the status of education for Mexican American students, Sosa (1993) reported alarming statistics—a decline in high school completion rates, a steady rise in the dropout rate, and high numbers of students two or more years behind grade level. In light of these findings, educators have an educational imperative to look for new ways to work with Mexican American families. This Digest describes research supporting family participation in students' education. It then describes barriers to participation faced by many Mexican American parents and successful programs and strategies for overcoming those barriers. Finally, the benefits of two-way communication and school-family partnerships are discussed.

☐ *Hispanic-American Students and Learning Style* (ERIC Clearinghouse on Elementary and Early Childhood Education, 1996)

This Digest identifies cultural values that may impact the learning processes of Hispanic-American students, reviews the research on the learning styles of Hispanic-American students, and discusses the implications of this research for counseling and teaching Hispanic youth.

☐ *Hispanic Parent Involvement in Early Childhood Programs* (ERIC Clearinghouse on Elementary and Early Childhood Education, 1995)

To determine effective strategies for connecting Hispanic parents and their children's early childhood programs, educators need to develop a greater understanding of the features of the Hispanic culture that influence parents' child rearing and socialization practices, communication styles, and orientation toward formal education. By forging closer communication and bridging the cultural gap between home and school, early childhood educators can establish a basis for future school success. This Digest provides an Hispanic profile, discusses cultural characteristics, and offers strategies that work with Hispanic parents.

☐ *Mediation in the Schools* (ERIC Clearinghouse for Law-Related Education; ERIC Clearinghouse for Social Studies/Social Science Education, 1994)

Concern about violence in the schools has made the study of conflict and conflict management an urgent matter for educators today. Mediation is one form of conflict management that is getting widespread attention in schools across America. Mediation involves a neutral third person, called a mediator, who assists the disputants in resolving their problem with the consent of all parties. It offers a risk-free way to settle disputes for the parties involved in the dispute. No agreement, no deal. This Digest describes ways that schools are addressing the problem of violence, how schools are using mediation to resolve disputes, and steps to the mediation process.

☐ *Preparing Teachers for Conflict Resolution in the Schools* (ERIC Clearinghouse on Teaching and Teacher Education, 1995)

A peaceable classroom or school results when the values and skills of cooperation, communication, tolerance, positive emotional expression, and conflict resolution are taught and supported throughout the culture of the school. This Digest discusses several approaches, both inservice and preservice, to preparing teachers to play a role in conflict resolution within schools and identifies problematic issues related to preparation.

☐ *Serving Linguistically and Culturally Diverse Students: Strategies for the School Librarian* (ERIC Clearinghouse on Languages and Linguistics, 1995)

The promotion of literacy is the most essential element in the design of school library services to a linguistically and culturally diverse student population. Librarians are faced with the challenge of linking students from widely varying backgrounds to information sources and drawing them into patterns of regular library use. By creating a positive climate, the school library can provide English as a second language (ESL) students with a place for learning, sharing, and personal growth. This Digest discusses ways the librarian in one high school fostered a positive environment in the school library for ESL students and broadened the role of the school library in effecting literacy experiences for these students.

☐ *Working with Diverse Learners and School Staff in a Multicultural Society* (ERIC Clearinghouse on Counseling and Students Services and American Psychological Association, 1995)

The challenges in working with an ever-growing pluralistic school population encompass many areas. The provision of relevant multicultural curriculums, the use of culturally sensitive assessment and intervention strategies, the training of school staff in the provision of these services, the recruitment and retention of multicultural and diverse professionals, and the integration of diverse communities and parents in an authentic and empowering manner are only a few of the critical issues facing those working with today's students. Professionals are also challenged by the need to consider the impact of complex social/environmental problems, which in many contexts have negative consequences for children from various racial/ethnic and social class backgrounds. This ERIC Digest highlights some of these major issues, including the training of culturally sensitive professionals, ways to serve diverse learners, culturally sensitive assessment and treatment strategies, training students to be culturally sensitive, and involving parents and community as authentic participants.

Please add my friend or colleague to your mailing list (please print legibly)

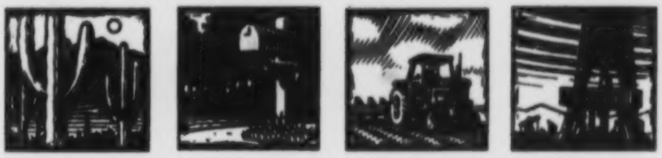
Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____



Low-Cost Books and FREE Resources on **Rural Education and Small Schools** from the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

☐ ***Rural Education Directory: Organizations and Resources***
Compiled by Patricia Cahape Hammer, 1996, 58 pp., soft cover, $12.00

Handier than ever with a detailed index, this new edition of our popular directory includes: national organizations, associations, networks, centers, and clearinghouses; federal government agencies and Congressional offices; rural journals; state organizations, National Rural Education Association affiliates, and other groups involved in rural education at the state level; and state department of education rural program coordinators and state data centers.

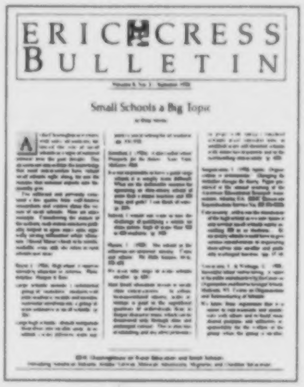
☐ ***Sustainable Small Schools: A Handbook for Rural Communities***
1997, 150 pp., soft cover, ISBN 1-880785-16-1, $15.00

This handbook helps community members and educators work together to improve small, rural schools. It is written in a readable style developed for a lay audience, but also includes the concerns that teachers and administrators face when working with community members. Chapters cover the historical and political factors affecting rural, small schools, curriculum considerations, model strategies, guidance on collaboration, and use of technology. An extensive resource chapter provides information about partnerships; coalition building; needs assessment; consolidation research; options such as Foxfire, four-day week, technology, and more; and tools for finding information.

☐ ***Local Schools of Thought: A Search for Purpose in Rural Education***
By Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12.00

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort to improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

> *The nature of the learning that is to proceed and the conditions necessary to that learning are the foci of* Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools.*
> — John I. Goodlad



ERIC CRESS BULLETIN

Small Schools a Big Topic

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list.

Published three times a year, the *Bulletin* announces new Digests, books, and services, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants. Free.

Free Digests from ERIC/CRESS

Check your selections and complete the address form on page 1 of the Order Form.

Rural Education

☐ *Cultivating Resilience: An Overview for Rural Educators and Parents.* M. Finley (1994), EDO-RC-94-5

☐ *Developing Supplemental Funding: Initiatives for Rural and Small Schools.* R. Carlson (1993), EDO-RC-93-4

☐ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

☐ *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* G. Huang (1995), EDO-RC-95-2

☐ *Perspectives on Rural Child Care.* B. A. Beach (1997), EDO-RC-96-9

☐ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

☐ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

Small Schools

☐ *The Academic Effectiveness of Small-Scale Schooling (An Update).* C. B. Howley (1994), EDO-RC-94-1

☐ *Affective and Social Benefits of Small-Scale Schooling.* K. Cotton (1996), EDO-RC-96-5

☐ *Curriculum Adequacy and Quality in High Schools Enrolling Fewer than 400 Pupils (9-12).* C. Roellke (1996), EDO-RC-96-7

☐ *Ongoing Dilemmas of School Size: A Short Story.* C. Howley (1996), EDO-RC-96-6

☐ *Small Scale and School Culture: The Experience of Private Schools.* G. E. Conway (1994), EDO-RC-94-6

BEST COPY AVAILABLE

Create smaller schools. It is widely documented that smaller schools have fewer disruptions and incidences of violence.

Restructure schools to engage students actively and meaningfully in the learning process. When students are involved, schools experience declines in discipline referrals and increases in school attendance. Restructuring schools usually leads to more student choice, better integration of student experience into the curriculum, and recognition of individual student expression.

Limit young people's access to weapons. In Arizona, the sale of firearms to minors became a felony—rather than a misdemeanor—when House Bill 2131 was enacted in 1994. According to the American Psychological Association, guns are used in more than 75 percent of youth killings.

Be careful not to discriminate against students with disabilities. According to the National Association of State Boards of Education, "angry educators, parents, and community leaders often point to students labeled 'emotionally disturbed' as the prime perpetrators of school violence. Yet, students labeled emotionally disturbed represent less than 1% of the overall student population, making it highly unlikely that the current rates of school violence could be solely—or even chiefly—attributed to [these] students."

Secure diverse funding sources for violence-prevention efforts. Diversification of funding sources is one of the best ways to ensure continued support of such efforts. At the federal level, money for preventing school violence is available as part of the National Education Goals effort. The Violent Crime and Law Enforcement Act of 1994 also includes funding for crime prevention. Many curricular and informational materials may be obtained at no or relatively low cost.

Conduct long-term evaluations of violence-prevention efforts. One of the fundamental gaps in violence-prevention research—and a crucial component to determine program effectiveness—is the lack of comprehensive, long-term evaluation data. Legislation should require and fund evaluations of all violence-prevention programs, and tie program continuation, expansion, or termination to demonstrated effectiveness.

Reprinted with permission from the Education Commission of the States (ECS), 707 17th St., Suite 2700, Denver, CO 80202-3427; 303/299-3600. Copyright March 1996 ECS. All rights reserved.

Rural Residents Want Safe, Orderly Schools That Focus on Teaching the Basics

Rural residents generally want the same things from their public schools as do other Americans: a safe, orderly environment and an emphasis on the basics. This and other findings are reported on a new edition of *Rural Audio Journal: Voices from the Main Street Cafe*, produced by the North Central Regionl Educational Laboratory.

Ed Janus and Joe D'Amico interviewed the residents of two rural midwestern towns and found that their chief concern was students' lack of respect for teachers and other authority figures. Some mentioned that drugs—often thought to plague only urban areas—contribute to the problem. "We found everyone concerned—sometimes deeply—about the lack of order in the schools," reports D'Amico.

These interview responses are in line with findings of a study conducted a few years ago by Public Agenda: the public wants schools to instill more order and discipline. Rural residents also echoed the nearly 60 percent of Public Agenda survey respondents who said that American schools' academic standards are too low. Many of those whom D'Amico and Janus interviewed want students to pass minimum competency tests to graduate from high school and favor schools emphasizing "the basics"—reading, writing, and arithmetic.

Some interviewees added that they wouldn't mind if schools went beyond the basics, such as teaching their children to think critically, but not too far. One woman supported teachers challenging her high school daughter's beliefs, but added, "I don't want them teaching their views and leaving mine out."

D'Amico and Janus note that rural residents were annoyed that the schools had to abide by what they thought were "federal" regulations. Many of these regulations, however, were actually state mandates.

Ordering information: *Rural Audio Journal: Voices from the Main Street Cafe* is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521; 800/356-2735 (cite order no. RAJ-V3-2, 60 minutes, $9.95, prepaid).

Directory of Teaching & Training Programs Geared Toward Curbing Prejudice

A comprehensive guide to anti-bias programs—programs that offer teaching and training in prejudice reduction, conflict resolution, and violence prevention—has been published by the ERIC Clearinghouse on Urban Education.

Authors Wendy Schwartz and Lynne Elcik compiled data on more than 50 programs. Each program entry lists the services offered, issues covered, populations served, resources available, and the name of a contact person.

The programs vary widely in their general principles, training emphasis, and service recipients. Some programs advocate changing behavior patterns—teaching people to resist acting on their bias or to control their anger. Others focus on changing beliefs and attitudes. Certain programs target prejudices toward only a few groups, while others are more all-encompassing.

Training methods range from traditional teacher-student learning activities to role-playing and using multimedia resources. Some programs concentrate on mediation and conflict management techniques while others emphasize emotional management.

The people served differs from program to program. Some are geared exclusively toward students, school personnel, or even religious and community leaders. Others center on communities as a whole or concentrate on specific combinations of groups (students and teachers or criminal justice and social service personnel, for example).

Ordering Information: *A Directory of Anti-Bias Education Resources and Services* is available from the ERIC Clearinghouse on Urban Education, Institute for Urban and Minority Education, Box 40, Teachers College, Columbia University, New York, NY 10027 (76 pages, $8 prepaid).

Programs and Policies Offer Schools Many Different Ways to Prevent Student Violence

Educators searching for violence prevention programs and policies can learn about many described in a guide by the Northwest Regional Educational Laboratory.

Researchers Robert Linquanti and BethAnn Berliner suggest that the most appropriate programs and policies for a school depend on its particular needs, resources, and safety goals.

Educators most concerned with responding to emergencies and restoring safety might be interested in developing crisis management plans. In other schools, conducting unannounced locker searches, using metal detectors, surveying trouble areas with closed-circuit television, and stationing police officers on campus may be more appropriate.

In situations not as dire, educators might consider implementing programs that teach prosocial behaviors and skills. Conflict resolution programs, for example, have students work cooperatively to make fair decisions and solve problems peacefully. Multicultural programs try to ease racial and ethnic prejudice, which are often at the core of violence.

Some curricula emphasize students taking responsibility for their actions and caring for one another. Instruction may also focus on building students' moral reasoning and decision-making skills.

Long-term preventions are sometimes criticized as out of the school's purview However, the authors stress that "no school or district can long afford to ignore these kinds of approaches if it aims to develop a comprehensive strategy to go beneath the roots of much student violence and begin to build a solid base of protection and prevention."

The researchers assert that it's important to see students as a resource and to give them opportunities to help each other—through activities such as peer tutoring programs—and to help society—through, for example, community service programs.

Ordering information: *Rebuilding Schools as Safe Havens: A Typology for Selecting and Integrating Violence Prevention Strategies* is available from the Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204-3297 (cite order no. NL-19S-AR, 37 pages, $7.30 prepaid).

Community Development Efforts Recommended to Combat Violence and Substance Use in Rural Areas

Violence and substance use are perceived to be urban problems, while rural communities are imagined as slow-paced, free of violent crime, and protected from gangs and drugs. But that's not so, according to a book of readings on the nature and extent of violence and drugs in rural America.

The authors agree that overcoming myths about rural areas is the first step toward effective prevention and intervention. They also discuss factors contributing to these problems and the most effective approaches to prevention and intervention.

Joseph R. Donnermeyer argues that these problems are not "imports" from the urban areas but result from changes in rural communities.

Daryl Hobbs notes that change is at the root of problems facing rural communities, but he also sees such change as the most effective means of combating these problems. "[W]e have emphasized that community change may not only be a source of the problem but that a revitalized community may be an important part of the solution," he writes.

Ruth W. Edwards stresses that effective prevention and intervention efforts require accurate information about individual communities.

A community development approach suggests the need for partnerships among rural communities and researchers, universities, prevention agencies, educational organizations, and others. Susan R. Takata describes one such partnership between the University of Wisconsin-Parkside and two small Wisconsin cities.

Donnermeyer speaks for all of the authors when he writes, "If there was ever an opportune moment for prevention programming to work, it is now and it is in America's rural communities."

Ordering information: *Perspectives on Violence and Substance Use in Rural America* is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480 (cite order no. P94-001-PVS, 176 pages, $9.95 prepaid).

Related Organizations, Programs, and Other Resources*

Big Brothers/Big Sisters of America
230 North 13th Street
Philadelphia, PA 19107
215/567-7000

Boys and Girls Clubs of America
Government Relations Office
600 East Jefferson Street, Suite 203
Rockville, MD 20852
301/251-6676

Center for Community Change
1000 Wisconsin Avenue, NW
Washington, DC 20007
202/342-0519

Center for Youth Development and Policy Research
Academy for Educational Development
1875 Connecticut Avenue, NW, 9th Floor
Washington, DC 20009
202/884-8000

Children's Defense Fund
25 E Street, NW
Washington, DC 20001
202/628-8787

Educators for Social Responsibility
23 Garden Street
Cambridge, MA 02138
617/492-1764

Family and Youth Services Bureau
Administration on Children, Youth, and Families
P.O. Box 1182
Washington, DC 20013
202/205-8102

I Can Problem Solve (ICPS)
Mental Health Association of Illinois
150 North Wacker Drive, Suite 900
Chicago, IL 60606
312/368-9070

National Alliance for Safe Schools
9344 Lanham-Severn Road, Suite 102
Lanham, MD 20706
301/306-0200; Fax 301/306-0711

National Association for Mediation in Education
205 Hampshire House, Box 33635
University of Massachusetts
Amherst, MA 01003
413/545-2462

National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
4770 Buford Highway, NE
Mailstop F36
Atlanta, GA 30341
770/488-4796

National Institute for Dispute Resolution
1726 M Street, NW, Suite 500
Washington, DC 20036
202/466-4764

National Resource Center for Youth Services
202 West Eighth
Tulsa, OK 74119-1419
918/585-2986

National School Safety Center
4165 Thousand Oaks Boulevard, Suite 290
Westlake Village, CA 91362
805/373-9977

Office of Juvenile Justice Delinquency Prevention
Juvenile Justice Clearinghouse
Department F
P. O. Box 6000
Rockville, MD 20850
800/638-8736

Peace Education Foundation
2627 Biscayne Boulevard
Miami, FL 33137
305/576-5075

Resolving Conflict Creatively Program National Center
Educators for Social Responsibility
163 Third Avenue, #103
New York, NY 10003
212/387-0225

Save Our Sons and Daughters (SOSAD)
2441 West Grand Boulevard
Detroit, MI 48208
313/361-5200

Scared or Prepared
Lee Canter & Associates
1307 Colorado Avenue
Santa Monica, CA 90407-2113
310/394-6017
800/733-1711

U.S. Department of Education
600 Maryland Avenue, SW
Washington, DC 20202
1/800-USA-LEARN
http://www.ed.gov

Print Resources

Conflict Resolution Education: A Guide to Implementing Programs in Schools, Youth-Serving Organizations, and Community and Juvenile Justice Settings is a reference tool that offers both basic information and the experience of experts in the field of conflict resolution education programs. A joint project of the U.S. Department of Justice and the U.S. Department of Education, this Guide provides background information on conflict resolution education; an overview of widely used, promising, and effective approaches; and guidance on how to initiate and implement conflict resolution education programs in various settings, including schools and alternative schools, juvenile justice facilities, community organizations, and other youth-serving agencies. Also included are a summary of the research on effective conflict resolution programs and an annotated list of curriculum resources. The 1996 document is available from NCJRS, Box 6000, Rockville, MD 20849; 800/638-8736; Fax 410/792-4358 (cite order no. NCJ 160935, 175 pp, free).

Educational Leadership, V. 54, N. 1, September 1996, a theme issue on Creating a Climate for Learning, features stories that include:

- how schools in the Child Development Project create "caring communities" where students work hard, learn more, and feel accepted;

[continued on page 12]

---

*Entries for this section were selected while researching this topic. It is not purported to be an exhaustive listing of agencies and resources.

Summer Professional Development Opportunities from AEL

Increase Student Achievement With More Effective Questioning A Training-for-Trainers Event

June 15-20, 1997
Lexington, KY

You can help your students become better thinkers and hold them more accountable for their own learning with a staff development program called QUILT— Questioning and Understanding to Improve Learning and Thinking. Designed to increase student learning by improving teachers' classroom questioning techniques, QUILT complements and supports many existing staff development programs.

QUILT encourages teachers to restructure their classrooms such that the learning environment becomes more active, more student-centered, more constructivist, more inquiry-based, and more meta-cognitive.

QUILT's training-of-trainers approach helps school districts prepare cadres of local teachers who then train others in their schools, districts, and states.

The QUILT program

- is ***nationally validated***, certified by the U.S. Department of Education's Program Effectiveness Panel as a "program that works";
- has a ***successful track record*** in more than 200 schools in 20 states and territories since 1991; and
- is ***research-based***, incorporating practices and techniques linked by research to higher levels of student achievement.

Costs for the weeklong training, five group lunches, refreshments, and materials are covered in the ***registration fee of $675. Registration deadline is May 1.***

For more information, contact Sandra Orletsky (orletsks@ael.org) or Beth Sattes (sattesb@ael.org) at AEL.

Fifth Annual Institute on Curriculum Integration

July 13-18, 1997
Morgantown, WV

The Institute provides school and district teams and curriculum leaders with opportunities, tools, and resources for planning integrated courses, units, and lessons. The activities and materials emphasize the roles of learner-centered instruction, standards-driven curriculum, technology integration, and performance-based assessment.

The Institute is a perfect setting for school and district planning in these areas:

- Interdisciplinary instruction
- Block scheduling
- School-to-Work activities
- Multiple assessment strategies
- Integrated technology

Interdisciplinary teams, career-cluster teams, multiple-site project teams, inclusionary learning teams, and staff development leaders are among those who can benefit from the institute experience. Participants gain knowledge and skills needed to:

- Increase capacity for curriculum planning
- Improve collaboration and teamwork
- Focus on learner goals
- Integrate technology
- Design effective professional development
- Dissolve school-community boundaries

A ***registration fee of $550, paid by May 1***, includes tuition, all activities, materials, team consultation, and breakfast and lunch daily. If you wish to use the institute for continuing education, recertification, or graduate credit, AEL will supply a syllabus.

For more information, contact Rebecca Burns at AEL (burnsr@ael.org).

Jack McDowell, an educator from Buenos Aires, visits AEL. A participant in AEL's listserv for Interdisciplinary Teamed Instruction, McDowell met with AEL staff and local educators to learn more about student-centered learning structures, team building, curriculum integration, and change management.

[*continued from page 10*]

- how some Texas schools reduced discipline problems and improved achievement with a research-based classroom management program;
- a conversation with Daniel Goleman, author of *Emotional Intelligence*, who argues that the school curriculum should include well-planned programs for teaching social and emotional skills;
- a conflict resolution program that features continuing education for parents and teachers; and
- how to help students build the inner resources to bounce back from life's setbacks.

Educational Leadership is published by the Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314-1453; 800/933-2723 or 703/549-9110.

Multicultural Messenger, a newsletter published 10 times a year by the International Multicultural Education Association, contains news updates related to multicultural education, reviews of books and other instructional materials, and articles by educators on their experiences in culturally diverse schools. Contact The Peoples Publishing Group, Box 70, Rochelle Park, NJ 07662; 201/712-0090.

Teaching Tolerance is a semiannual periodical distributed free to teachers and other educators. The magazine's goal is to provide a vehicle for sharing ideas and resources for teaching tolerance and understanding among various groups. Contact Teaching Tolerance, 400 Washington Avenue, Montgomery, AL 36104.

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board:
Diana Bowman
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Marian Keyes
Pat Penn
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Non Profit Org
U.S. Postage Paid
Permit No. 743
Pensacola, FL
32501

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 16
No. 2
•
June
1997

Don't let this be your last issue of The Link!

We are updating our mailing list. If you would like to continue receiving this publication, please complete the form inside and return it to AEL.

In this issue:

RESEARCH NOTES

Parent Involvement in Schools: Researchers Look at Parents' Perspective, p. 2
Defining Purpose Is the First of Many Steps Toward Creating an Effective Assessment System, p. 3
Adopting Approach That Reading is Entertaining Helps Young Children's Literacy Development, p. 4
Rural Students Tell What They Like and Dislike About Their Schools, p. 5

NOTEWORTHY

International Math-Science Study Finds U.S. Better in Science, But in the Middle Overall, p. 6
Neuroscience Offers New Understanding of Dyslexia, p. 7

FOCUS ON INSTRUCTION

The Four-Column Approach to Open-Ended Response Questions, p. 9
Nifty Fifty—A Trip Around the United States, p. 10

INSIDE AEL

AEL Brings Together School Teams in Continuous Quest for Improvement, p. 11

AEL more than 30 YEARS OF SERVICE to educators in Kentucky, Tennessee, Virginia, and West Virginia

RC021111

RESEARCH NOTES

Parent Involvement in Schools: Researchers Look at Parents' Perspective

Parent involvement has long been a topic of interest among those concerned with optimal outcomes for students. For many years, education research has supported the conclusion that parental involvement generally benefits children's learning and school success. A new synthesis of the research literature, appearing in the Spring 1997 *Review of Educational Research*, suggests that parents' involvement decisions and choices are based on their own ideas and experiences, as well as on other factors growing out of environmental demands and opportunities. Three major factors appear to account for parents' decision to become involved in the education of their children: (1) parents' beliefs about what is important, necessary, and permissible for them to do with and on behalf of their children; (2) the extent to which parents believe that they can exert positive influence on their children's education; and (3) parents' perceptions that the child and school want them to be involved.

Researchers Kathleen V. Hoover-Dempsey and Howard M. Sandler (Vanderbilt University) reviewed psychological theory and research that appear to influence parents' involvement. They defined parent involvement as the broad range of activities cited in the involvement literature, including home-based activities related to children's learning in school (for example, reviewing the child's work and monitoring the child's progress, helping with homework, discussing school events, and talking by phone with the teacher). The researchers also looked at school-based activities such as driving on a field trip, coming to school for conferences or informal conversations, volunteering at school, or serving on a parent-teacher advisory board.

The researchers point out that parents, having made the basic decision to become involved in their children's education, choose involvement activities that are shaped by their perceptions of their own skills, abilities, and interests, as well as other demands on their time and energy. For parents who lack a firm belief that they should be involved in the child's education, neither a sense of efficacy

Schools Learn New Ways to Involve Parents in the School Improvement Process

Several school teams across the Region are collaborating to improve their schools, but they are not following some predetermined, step-by-step process. In retreat-like settings, AEL is helping school teams design their own unique improvement plans. Some are discovering innovative ways to include parents.

- A high school team came to the first retreat with a principal and two students but, for the second meeting, invited a parent to join them. Invigorated by the experience, the parent wrote a grant for the school to conduct—with the involvement of the greater school community—activities to help them more clearly define their vision. With the administrator's support, this parent has expressed the commitment to complete these activities with or without the grant money.
- One junior high school team met with a carefully selected group that included parents of high, average, and low achievers. Intent on hearing parents' views, the team used a process learned at an AEL retreat to ensure that everyone had an equal opportunity to be heard.

Both of these schools have made the vital connection between involving parents and improving their schools.

Would a team from your school like to get involved in a continuous quest for school improvement? Contact Beth Sattes (sattesb@ael.org) or Sandra Orletsky (orletsks@ael.org). Also, see related story on page 11.

nor the parent's perception of general invitations to become involved appear sufficient (in most circumstances) to move a parent toward involvement.

Hoover-Dempsey and Sandler recommend that communities and school districts include parents as an explicit part of the schools' mission. They also recommend that schools and teachers be enabled to spend at least a portion of the work week interacting with parents. Finally, the researchers conclude that those who wish to increase parent involvement and extend the benefits it offers must focus, in part, on the parent's perspective in the process.

For more information or a free single copy of the article, contact Denise McKeon or Mary Meyers at the American Educational Research Association, 1230 17th Street, NW, Washington, DC 20036-3078; 202/223-9485, fax 202/775-1824.

Weekly Guides Get Families Involved

Looking for a school-to-home communication tool that's simple to use and inexpensive? AEL's series of weekly guides, *Family Connections*, have found their way into more than 65,000 homes in 47 states. Schools send these colorful four-page guides home with children weekly—each child receives 30 different issues.

Family Connections 1 was designed for families of preschool children. *Family Connections 2* was developed for families of kindergarten and early primary children. Each issue offers a brief, easy-to-read message for parents concerning such topics as the importance of reading aloud, how children learn through play, or using the public library. A read-aloud selection is found in every issue as well. The guides' do-at-home activities are educational and fun for both parents and children. They use materials commonly found in most homes and require little preparation.

Some of these activities will soon be featured on AEL's web site (http://www.ael.org). From the *Family Connections* page, users can see

- a message to parents,
- a read-aloud selection for young children, and
- an activity that can be replicated at home.

A Spanish version of the guides is also available. Head Start programs and others that serve Spanish-speaking populations have found *Relaciones Familiares 1* to be a valuable tool for enhancing home-school partnerships.

Want to know more about *Family Connections*? Contact AEL to request pricing information and a free sample.

Defining Purpose Is the First of Many Steps in Creating an Effective Assessment System

Clearly defining the purpose, or purposes, of an assessment is the first, crucial decision states face when implementing assessment programs. But it is just one of five major challenges on which the success of the endeavor rests, says author Linda A. Bond in a report by the North Central Regional Educational Laboratory.

Setting the assessment system's goals requires deciding whether it will serve as a measuring tool of student performance or an instrument of curricular reform, and determining what students will be tested on, Bond explains.

Other challenges states must meet include the following:

- Technical requirements—The reliability, validity, and legal defensibility of assessments are essential, as is their ability to be implemented with the resources available.
- Capacity issues—Educators will need technical assistance and professional development to administer the tests and interpret and respond to the results. States should also help the public understand the tests' limitations.
- Impact on management and governance—The possibility exists that state-level assessment programs can (intentionally or not) limit teachers' flexibility in the classroom and move some control over education policy from the local to the state level.
- Difficulties associated with creating innovative assessments—Designing new testing technologies, such as essay-based tests or performance assessments, carries its own set of challenges because "agreement about quality control criteria" is not well established, and it

can be difficult to design, explain, and defend such tests.

To Order: *Challenges in the Development of State Assessment Programs That Support Educational Reform* is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480; 800/356-2735 (cite order no. RPIC-CD-95, 14 pages, $5.95 prepaid).

Adopting Approach That Reading Is Entertaining Helps Young Children's Literacy Development

A new study by the National Reading Research Center finds that growing up in a home where reading is viewed as a source of entertainment is a better means of preparing young children to read than growing up in a home where reading is viewed as a set of skills to be learned.

A research team led by Susan Sonnenschein, Linda Baker, and Robert Serpell examined the relationship between prekindergarten and kindergarten children's home environments and their early literacy skills development. The researchers categorized the home environments based on parents' responses to questions about ways to help their children learn to read and parents' journal entries about their children's reading activities.

The researchers' findings about "the importance of an entertainment approach to fostering literacy-related skills seems to be consistent with frequently recommended pedagogical practices," such as having children "read trade books rather than basals" and teaching phonics skills within a reading context. Such practices emphasize reading as a fun, worthwhile activity—not simply an accumulation of skills acquired through the use of flashcards and workbooks.

These findings come from an ongoing longitudinal study, making it possible to determine the relative effectiveness of the entertainment and skills approaches as children continue through elementary school.

To Order: *Strands of Emergent Literacy and Their Antecedents in the Home: Urban Preschoolers' Early Literacy Development* is available from the National Reading Research Center, Dissemination/Publications, 318 Aderhold Hall, University of Georgia, Athens, GA 30602-7125 (cite report no. 48, 40 pages, $4 prepaid; make checks payable to NRRC).

Videotape Stresses Importance of Reading Aloud

The Magic of Reading Aloud is a 14-minute videotape produced by the *Family Connections* staff at AEL. The video emphasizes the importance of reading aloud to create successful, happy readers. Patricia Penn, who wrote the script and produced the videotape, emphasizes that it is meant to be motivational for families, not instructional.

"It does include some how-to, but is primarily designed to stress the enjoyment of reading aloud," Penn said. Most of the readings used in the video are taken from *Family Connections*, AEL's colorful guides to early learning (see box, p. 3). Accompanying the videotape is a book, *Horace the Hugging Hippo*, written by Penn and illustrated by Royce Stanley Dunn. The book is featured as a read-aloud selection in the tape.

A limited number of copies of the videotape's first cut, along with a copy of *Horace*, are available on a first-come, first-served basis to *Link* readers. Send a check for $5, made payable to AEL, to cover shipping and handling. Direct your request to

AEL
Family Connections
Read-aloud Videotape Offer
P. O. Box 1348
Charleston, WV 25325-1348

Rural Students Tell What They Like and Dislike About Their Schools

Rural students' likes and dislikes are similar to those of many students across the country. Reflections of rural students can be heard on an audiotape produced by the North Central Regional Educational Laboratory.

Although school can potentially offer a reprieve from boredom, some rural youth say they dislike or hate school. One complaint is being bored in classes in which they passively fill in worksheets or listen to the teacher lecture. "I think the classes that are most interesting are the ones that have hands-on work," one student says. "Really good teachers... talk to you, show you, and then let you do [the work]." Students agree that the best teachers present material imaginatively. One student describes how her teacher cut an apple into many parts to show what proportion of the earth is topsoil. "That got everyone involved, and they had fun," the student says.

In addition to having teachers who present subject matter creatively, students want teachers who care about them. "Teachers shouldn't be teachers unless they want to help students and watch them grow," another student comments. Another complains that too many teachers "don't make students feel like they're wanted in the class. Teachers say [the students] won't amount to anything."

In other parts of the audiotape, rural youth read excerpts from their writings about friendships, parents, racism, what it's like to grow up in a rural area, the need for security, and other concerns.

To Order: *Rural Audio Journal: Young Voices From the Rural Midwest* is available from the North Central Regional Educational Laboratory, 1900 Spring Rd., Suite 300, Oak Brook, IL 60521-1480; 800/356-2735 (cite order no. RAJ-V4-1, 60 minutes, $9.95 prepaid).

ERIC Clearinghouse on Rural Education and Small Schools at AEL Offers New Digests

- Perspectives on Rural Child Care
- Unschooled Migrant Youth: Characteristics and Strategies to Serve Them
- Child Labor in Agriculture
- Learning from Gangs: The Mexican American Experience
- Why Bilingual Education?

These new two-page summaries of the education literature are available free from AEL or can be downloaded from the web at http://www.ael.org/erichp.htm.

Students Speak to AEL About School Reform

Student perceptions of their learning and the extent to which their education has prepared them for the future are rarely reported in the literature. But that is precisely the focus of AEL's 1997 Education Issues Forums, held this spring. At four high schools in each of our states, AEL's trained facilitators captured, in rich detail, the impressions of 10-12 seniors during two-hour focus group sessions. Students talked at length about their learning, the ways schools help them learn, and the effects of reform efforts such as block scheduling, technology-based instruction, and school-to-work programs.

AEL began its annual series of Education Issues Forums last year. The type of community visited in each state changes each year. Given the rural nature of much of AEL's Region, meetings in two states always focus on rural communities and schools.

AEL uses the knowledge gained through the forums to target its work to reflect local needs. Equally important, AEL expects the findings to contribute to an understanding of the issues facing schools and whether issues vary in different types of communities.

NOTEWORTHY

International Math-Science Study Finds United States Better in Science, But in the Middle Overall

According to the most thorough international study of math and science education ever conducted, U.S. students are above average in science and below in math. Overall, American students are above average in life sciences and environmental issues; average in fractions, algebra, and physics; but struggle with measurement and geometry.

Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, Curriculum, and Achievement in International Context, reports U.S. scores in both math and science as not significantly different from those of England or Germany. In science, among participating G-7 countries (United Kingdom, Canada, France, Germany, Japan, and Italy)—America's major economic and political allies—only Japan scored significantly higher than the United States. Italy did not participate in the test.

Among the findings drawn from the Third International Mathematics and Science Study (TIMSS):

- eighth-grade mathematics classes in the U.S. are not as advanced and not as focused as those in Japan and Germany;
- topics taught in U.S. eighth-grade mathematics classrooms are at a seventh-grade level by international standards;
- the content of U.S. mathematics classes requires less high-level thought than classes in Germany and Japan;
- U.S. mathematics teachers' typical goal is to teach students how to do something, while Japanese teachers' goal is to help them understand mathematics concepts.

U.S. Secretary of Education Richard Riley said states and local school districts should review and toughen their academic standards, and cited materials prepared by the National Council of Teachers of Mathematics as an example of how to improve the teaching of math. Based on videotapes of actual classroom instruction, the researchers found that U.S. math classes still largely focus on how to solve problems, while Japanese teachers do a much better job at helping students understand the concepts behind the solutions.

The study found that common culprits, such as television watching and lack of time devoted to study, could not account for the below-average U.S. math scores. Heavy TV watching was found to be about as common in Japan—one of the highest scorers—and U.S. students actually spend more classroom time on math and science than students in both Japan and Germany.

The TIMSS report includes other findings:

- There was little difference in how U.S. boys and girls scored in both math and science.
- Japanese teachers have more opportunities to discuss teaching-related issues with their colleagues than do U.S. teachers.
- U.S. teachers assign more homework and spend more class time discussing it than teachers in Germany and Japan. U.S. students report about the same amount of out-of-

Free Standards-Based Workshops in Mathematics and Science

Free workshops on standards-based teaching in mathematics and science are available to K-12 teachers in AEL's four states—KY, TN, VA, WV—a service provided by the Eisenhower Regional Consortium for Mathematics and Science Education.

The workshops not only address national standards in mathematics and science but are tailored to focus on each state's standards as well. Featuring hands-on activities, cooperative learning, and reflective discussions, the workshops were customized for each state by teams of teachers, state department representatives, and professional development experts. Teachers in each state have been trained to conduct the workshops at the local level.

Three- or six-hour workshops may be scheduled at local schools during the school day, after school, on Saturdays, or during the summer for a *minimum of 15 teachers*.

To schedule a workshop, the school principal or district administrator should contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

We are updating our mailing list.

If you would like to continue receiving this publication, as well as *R&D Watch*, please complete pages 2-3 of this insert and return it to AEL.

In search of stories about exciting classrooms!

If you are a teacher (or you know of one) who has a story to share about successful implementation of creative, innovative instructional practices in the classroom, we invite you to complete page 4 of this insert. This is an opportunity to share the excitement of teaching and learning with thousands of *Link* readers—teachers, principals, education policy makers, and others.

Mailing List Update

☞ Pull out ✍ Fill out ☒ Mail back

First Class
Postage
Required

AEL
The LINK
P O BOX 1348
CHARLESTON WV 25325-1348

You are on our mailing list to receive both *The Link* and *R&D Watch*. Please help us learn more about you and your use of information found in these two publications.

1. How did you first become aware of AEL?

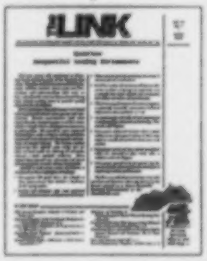
___ a friend or colleague
___ *The Link*
___ other (please explain) ______________________________

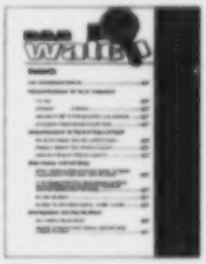
___ my association newsletter
___ *R&D Watch*

___ an AEL staff member
___ an AEL-cosponsored workshop or conference

2. Approximately how long have you been receiving *The Link* and/or *R&D Watch* from AEL?

___ Less than a year ___ 1-3 years ___ 4-6 years ___ 7 or more years





3. Had you heard of either publication—*The Link* or *R&D Watch*—before you started receiving them?

___ Yes ___ No

Please mark your responses to the following items, using this rating scale:

SD = Strongly Disagree d = disagree
a = agree SA = Strongly Agree

↓ **Please circle one in each column** ↓

Please consider the following for both publications:

	The Link				*R&D Watch*			
4. This publication contains information about high-quality products.	SD	d	a	SA	SD	d	a	SA
5. This publication gives me access to timely information.	SD	d	a	SA	SD	d	a	SA
6. I have gained new knowledge as a result of reading this publication.	SD	d	a	SA	SD	d	a	SA
7. This publication has stimulated me to think of better ways to do my job.	SD	d	a	SA	SD	d	a	SA
8. I know of times my colleagues have gained knowledge or taken some action that can be traced back to sharing of this publication.	SD	d	a	SA	SD	d	a	SA
9. This publication provides me access to others' products that are helpful to me as I plan my work.	SD	d	a	SA	SD	d	a	SA
10. This publication provides me access to products that help me to do my job.	SD	d	a	SA	SD	d	a	SA
11. This publication has enabled me to expand my network of professional contacts.	SD	d	a	SA	SD	d	a	SA
12. This publication has provided me access to information regarding new research-based products and services.	SD	d	a	SA	SD	d	a	SA
13. By reading this publication, I'm able to learn about others whose professional interests may be similar to my own.	SD	d	a	SA	SD	d	a	SA

14. I would like either *The Link* or *R&D Watch* to include more on the topic of ______________________________
____

BEST COPY AVAILABLE

Please return this Mailing List Update to AEL

by July 1, 1997, to continue receiving *The Link* and *R&D Watch* (FREE publications from AEL)

Which category best describes your employer?

____ (01) Business/Industry
____ (02) Education Association (NEA, NCTM, etc.)
____ (03) Educational R & D Lab/Center
____ (04) Federal Education Agency
____ (05) Higher Education Institution
____ (06) Intermediate Service Agency/ Educational Cooperative
____ (07) Local School District (parochial, private, or public)
____ (08) State Department of Education
____ (11) U. S. Congress/State Legislature
____ (12) Federal/State Government (other than education)
____ (13) Other

Which title best describes your role?

____ (01) Administrator (**other than principal or superintendent**)
____ (02) Counselor/Psychologist
____ (03) Curriculum Specialist
____ (04) Dissemination/Staff Development Specialist
____ (05) Librarian
____ (06) Principal (elementary)
____ (07) Principal (middle school)
____ (08) Principal (secondary)
____ (09) Researcher/Evaluator
____ (10) School Board Member
____ (11) Superintendent
____ (12) Teacher (elementary)
____ (13) Teacher (middle school)
____ (14) Teacher (secondary)
____ (15) Teacher (postsecondary)
____ (19) U.S./State Senator/Representative
____ (20) Congressional/Governor's Staff
____ (25) Editor/Media Specialist
____ (26) Other

The information provided below is ____ the same as it appears on my mailing label

____ is an address correction ____ is a correction of name or other information

This is my ____ work address ____ home address

Please print legibly.

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

I would be willing to participate in a telephone survey (15 minutes or less) about AEL products or services: ____Yes ____No

Telephone: (________)______________________ ___Work phone ___Home phone

The Link's Focus on Instruction

Stories that capture the excitement of teaching and learning in creative classrooms

The Link's Focus on Instruction column features stories about teachers who are successfully implementing creative, innovative instructional practices in their classrooms. If you are interested in having your classroom featured, please complete and return this form to AEL. If selected, an AEL writer will contact you for an interview. The story will be written based on information gathered during the interview. **You will be given an opportunity to review the story before it is published.**

Please provide all contact information.

Teacher's Name ______________________________

Mailing Address ______________________________

____

Grades/Subjects Taught ______________________________

School District ______________________________

School ______________________ Fax (_____) ______________

Phone Numbers (_____) ______________ (_____) ______________

School Home

Day, time, and location (school/home) at which you prefer to be contacted ______________

1. What is the topic or focus of your story: ______________
   Please tell us what you are doing in this area.

2. What are the results of your work—
   a. from your perspective

   b. for your students

Photos are sometimes used in *The Link*, however, AEL cannot guarantee the return of any photos provided.

school math and science study as their Japanese and German counterparts.

- U.S. teachers generally receive more formal education, but not as much hands-on training and daily support for quality teaching as their Japanese colleagues.
- Although most U.S. math teachers report familiarity with reform recommendations, few apply the key points in their classrooms.

Additional TIMSS reports, examining the math and science achievement of 4th- and 12th-grade students, are being prepared. In all, nearly 500,000 students participated in TIMSS—40,000 in the United States.

An additional report, *Splintered Vision: An Investigation of U.S. Science and Mathematics Education*, focuses on textbooks and curriculum in mathematics and science. *Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, Curriculum, and Achievement in International Context* draws from the many reports and parts of TIMSS to summarize the most important findings concerning achievement and schooling in the eighth grade.

Reports of the data are available on the Department of Education's Web site at http://www.ed.gov/NCES/timss. Printed copies are available while they last from the National Library of Education at 1-800/424-1616. The report also will be available from the U.S. Government Printing Office.

AEL staff, especially those in the Eisenhower Regional Consortium for Mathematics and Science Education, are well versed in the TIMSS study. Consortium staff are meeting with steering committees in each of the four states to discuss ways to share the study results as information becomes available. AEL has distributed copies of the report to many education leaders and policy makers across the Region. Staff continue to investigate ways to promote effective discussion of the meaning of the data. AEL can be a valuable resource—for information, explanation, learning, and discussion—about the TIMSS findings.

Neuroscience Offers New Understanding of Dyslexia

Learning to read is fundamental to school achievement, yet one in five school children experience "an unexpected difficulty learning to read despite intelligence, motivation, and education" (p. 99). By definition, these children have dyslexia.

Once thought to be a visual problem, dyslexia is now understood by neuroscientists to result from a deficiency in the specific area of the brain that automatically and unconsciously processes the units of sound—phonemes—that make up words, both spoken and written. Brain regions responsible for higher-order linguistic functions—e.g., syntax, semantics, comprehension, and discourse—are not affected. Neither is intelligence.

In reading, children must learn to associate letters with their sounds, transforming the visual into the linguistic. To read the word "cat," for example, the reader must break the word into three letters with distinct sounds—kuh-aah-tuh—then reassemble the sounds into a one-syllable word. This part of the reading process is called decoding. Only after the word is decoded or identified does the reader have access to its meaning.

As reading proficiency develops, the part of the brain responsible for phonological processing shifts into automatic gear, breaking apart and reassembling the distinct sounds in words without conscious effort. In children with dyslexia, dysfunction in this part of the brain prevents the process from becoming automatic. Even dyslexic children who excel academically continue to read slowly and laboriously, with great conscious effort.

Dyslexia affects speech as well as reading, causing problems with the pronunciation of long or new words, or with names of objects shown in pictures. Phonological weakness causes particular problems with rote memorization, where words are separated from their context, and with rapid retrieval of words, such as when children are called on to answer questions in class. Without the pressure of time, however, children with dyslexia may display excellent oral skills. Dyslexic individuals use their strengths in other brain regions to help compensate for their weakness in phonological processing, using context, concepts, models, and ideas (the big picture) to help them decipher words and remember specific details.

Standard classroom practices, such as timed tests and multiple choice tests, that isolate words from their context "excessively penalize" dyslexic students of all ages and prevent them from showing teachers what they know (p. 104). Appropriate classroom accommodations would, therefore, include allowing them to take tests without time limits and to substitute oral examinations and essays for tasks involving rote memorization and multiple choice. Most important, deliberate phonological training must be provided as part of early reading instruction.

More help may soon be forthcoming, if the results of a small study can be replicated with larger numbers of children, especially children with dyslexia. Researchers Paula Tallal and Michael Merzenich used video games with language-impaired children to stretch (or slow) speech, helping the children to process the sounds of letters. Children in the study made two years' progress in reading in only one month. An expanded study will involve up to 500 children across the country, and if results hold, a CD-ROM with the video games may be available to certified locations next year. Tallal is co-director of the Center for Molecular and Behavioral Neuroscience at Rutgers University, and Merzenich is with the Keck Center for Integrative Neuroscience at the University of California at San Francisco.

This story is summarized (by Soleil Gregg, AEL staff) from two articles published in the November 1996 issue of *Scientific American*: "Dyslexia" by Sally Shaywitz, pp. 98-104, and "Playing Past Learning Disabilities" by John Horgan, pp. 102-103.

AEL at White House Conference on Brain Research

AEL staff attending the April 17 *White House Conference on Early Childhood Development and Learning: What New Research on the Brain Tells Us About Our Youngest Children* say the event focuses the country's attention on the relationships between brain development and early learning—before most children have entered school. Secretary of Education Richard Riley welcomed conference participants and expressed the Department of Education's interest in the new brain research and its implications for school readiness and learning.

A message from President Clinton carried his desire to do four things to help children ages birth to three: (1) improve child care, (2) provide health insurance for children, (3) expand enrollment in Early Head Start, and (4) protect children's safety.

Patricia Kuhl, a researcher in speech and language development at the University of Washington, reported that language is mapped out during the first 6 to 12 months of life. She described the process this way: At birth, babies are global citizens, able to hear and distinguish all the sounds in all the world's languages. By six months, children can focus on the distinct sounds of their native language, and use listening to code or map sound structures in their brains. By 12 months, the brain is culture bound. For example, Japanese children can no longer distinguish between the sounds for "r" and "l" since the Japanese language has no "l." What is used is strengthened, what is not used is pruned. According to Kuhl, language develops through social interaction, as opposed to listening to a TV or radio. Social interaction stimulates hormone levels that, in turn, help lay the tracks to program the brain. She pointed out that preschoolers can learn a second language much easier than adults, but most foreign languages are taught at the secondary level of schooling.

Brain research, particularly as it relates to learning disabilities, is an area of special interest to Soleil Gregg. Readers who share this interest can contact her at AEL (greggs@ael.org).

The "Four-Column" Approach to Open-Ended Response Questions

by Cheryl Hayes, Teacher, Bowling Green, KY

FOCUS ON INSTRUCTION

Featuring articles from teachers in the four AEL states—this issue, Kentucky and Tennessee

Since the inception of the Kentucky Education Reform Act, Kentucky students are answering far more open-ended response questions. Because their answers are not always complete, our school adopted a method—the four-column approach—to help them think through this type of question (see Table 1). Students use the questions in the top row to read a question critically, think through a plan, and write an outline for an answer.

Columns 1 and 2 require critical reading, column 3 requires integration of process and content, and column 4 makes connections and moves students beyond proficiency.

Our students have found success with this process; in fact, one group of high school students conducted a workshop for teachers and students to demonstrate its use! What a wonderful exchange—to see all levels of students using this approach to respond completely to questions that previously may have stumped them. Not only did they find success with open-ended response questions, their self-esteem and morale received a boost as well!

For more information, contact Cheryl Hayes, seventh-grade math teacher, Drakes Creek Middle School, 704 Cypress Wood Way, Bowling Green, KY 42104; fax 502/782-6138.

Table 1. Open-Ended Response Analysis Chart

Knowledge (Know)	Processes (Do)	Level of Proficiency (Answer)	Connections (Apply)
• What are we talking about?	• What do I have to do? Identify verbs and key words. • How many questions do I have to answer? • How many times do I need to do it?	• What do I know that can answer these questions? • Is my answer complete? • Did I answer all parts of the question? How well did I do?	• How can I make this answer better? • How does this apply to other things? What other examples or effects can I think of?
• Students write down what the question is about—using the language from the question. • This involves a look at critical vocabulary and sets the parameters for the first step of reading and thinking.	• Students write down power verbs, key words and numbers. • This delineates processes, content, and amount needed.	• Students focus on the content and the number of requirements in the questions to assure a complete answer. • This moves students to the proficient level—they must answer all parts for proficiency.	• Students make connections with previous knowledge. • This process enhances breadth and depth of answers and may prompt additional ideas if the student is "stuck."

Nifty Fifty—
A Trip Around the United States

by Carolyn Smith, Teacher, Knoxville, TN

Have you ever thought of taking your students on a trip around the United States? They can take the trip while practicing their reading, English, social studies, mathematics, handwriting, spelling, and art.

This year-long project is a lot of fun for everyone. Here is how it works. At the beginning of each school year, my students bring a spiral notebook containing more than 100 pages. I ask them to pretend that they have just won a vehicle of their choice and $1 million—from a quiz show, lottery, sweepstakes, etc.—it's their choice.

In the first assignment, students explain how they won the money. Next, they create illustrations of their vehicles and write descriptions of them.

To begin their travels, I tell them they are being flown to Washington, DC, to accept their money. While there, they will also be sight-seeing. Each student chooses two places to visit in Washington. Their next assignment is to write about the trip—the flight, receiving the prize money, and the places they visit. I check out books from the school and public libraries to help with this task. Students can also get a lot of information from the Internet, if access is available. At the end of this task, students find out where their tour begins—the state in which they pick up their vehicles. Each student could depart from a different state.

Next, we work on learning how to use the AAA tour books—the basis for their research as they travel from state to state. Again, the Internet can be an excellent tool for doing some of this research.

The last four pages of the notebook are used to keep a detailed log of the expenses incurred while traveling around the United States. At the end of the year, students calculate their expenditures in each state. I give them the cost of gasoline and tell them how many miles per gallon their vehicles get. After adding gasoline costs to amounts they spent for other things, they calculate how much of their $1 million is left. Students reserve several pages before the expense log to explain how they will spend any remaining money, and illustrate those plans.

At first, we work 45-60 minutes on this project once a week, covering only one state per week. After three to four weeks—when I'm sure students understand what to do—I assign two states per week. They still have 45-60 minutes to work at school; however, anything not completed during that time has to be done on their own time.

One possible spin-off from this project is to assign each student a single state on which they do an in-depth project. Since each student will have had a brief overview of all 50 states, they will have some basis for making such a selection.

Nifty Fifty culminates every year with a states fair presented for parents, who have been very pleased with the project. In fact, one of my students was given the responsibility for planning the family's summer vacation.

For more information, contact Carolyn Smith, Farragut Intermediate School, 208 West End Boulevard, Knoxville, TN 37922, 423/966-6703.

VOL. 16, NO. 2 • June 1997

INSIDE AEL

AEL Brings Together School Teams in Continuous Quest for Improvement

In nontraditional, retreat-like settings, AEL is helping school teams—teachers, administrators, parents, and students—explore school transformation. At an April conference, high school team members became part of a collaborative effort in which AEL staff, school teams, higher education faculty, and other invited guests explored the how and why of continuous improvement.

If your high school missed the April meeting, it's not too late to get involved. More events are planned, and schools can join the effort any time. In addition, conferences will be scheduled for elementary and middle school/junior high teams.

> **"I've never been to anything like this before . . . Usually conferences are boring. This is not another boring meeting about how to do [lesson plans] . . . step one, step two."**
>
> *—a conference participant*

Because the purpose of these conferences is to stimulate questions—not to provide answers—*Inquiry Into Improvement* does not feature the standard "how-to" programs about school improvement. Instead, nontraditional processes—storytelling, reflection and questioning, and inquiry groups—facilitate the events.

Some team members come to their first meeting expecting to sit through lectures and presentations, but instead, are quickly engaged in discussions and small-group work. Invigorated learners, pleased that the retreat demonstrates "learning by doing," replicate this approach at faculty meetings when they return to their schools.

Schools should attend future conferences if they

- are curious about how to get their school started on the continuous improvement journey,
- are interested in how to sustain school improvement efforts,
- want to network with other schools that are taking the journey, and
- want to investigate their own school and practice.

If your school is interested in joining this effort, call today and reserve a place for your team; ***registration is limited***. The fee of $50/participant includes five meals, refreshments, and materials. Fall conference dates will be confirmed soon.

For more information, please contact Sandra Orletsky (orletsks@ael.org) or Beth Sattes (sattesb@ael.org) at AEL.

AEL Web Site Undergoes Major Remodeling

This is not just a facelift—it's major reconstructive surgery! AEL's web site is being redesigned to make it more dynamic, interactive, and product focused.

The site is changing from a "tell me" to a "show me" web site. For example, instead of simply telling users that AEL does research, our web site will provide research; in addition to describing a particular research project, our site will give tangible, immediately usable information related to the project's focus. You can expect to see teacher-developed activities from classrooms involved in various projects with AEL, directions for activities that parents can do with their young children, or helpful tips on implementing standards-based reform in math and science classrooms. The newly designed site should be up and running by the end of May.

We hope you'll like our site and visit it often (http://www.ael.org). Also, give us your views of its usefulness. Either e-mail aelinfo@ael.org, call 800/624-9120, or respond on-line to our new users' survey.

Teachers—
tell the story of your creative classroom in The Link!

Principals—
do you know of outstanding teachers who would like to share their stories?

See instructions provided in the insert to this issue.

School-to-Work Equity Kit

A new kit from the Women's Educational Equity Act Publishing Center offers a variety of resources intended to enhance and strengthen school-to-work programs. It comes complete with articles that examine the role of equity in school-to-work and skill standards; activities and guidelines for school- and work-based learning; a school-to-work fact sheet; information on key programs and publications and on disaggregating data; and the Center's school-to-work resource booklet, *School-to-Work: Equitable Outcomes* (order #2766; $15). For more information, contact Heidi Lynch, Education Development Center, 55 Chapel Street, Newton, MA 02160; 800/225-3088; fax 617/332-4318.

AEL Sponsors Fall Conference: Teaching and Learning for the Future November 7-8, 1997 • Nashville, TN

AEL's annual conference will feature sessions on technology, action research, equity issues, professional development, and services of the Region's technical assistance providers. One-day preconference training sessions on parent involvement, interdisciplinary teamed instruction, and other skills are planned for Thursday, November 6.

Nashville's Wyndham Garden Hotel (airport location) is the site for the event. The conference schedule of Friday morning through noon Saturday allows participants time to catch the sights and sounds of the home of country music. The Wyndham Garden will permit conference rates on rooms reserved any night from Wednesday through Saturday.

If you are interested in receiving the request for session proposals or further information on the conference, contact Jane Hange at AEL, hangej@ael.org.

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone:
304/347-0400
800/624-9120
304/347-0487 *(fax)*
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Diana Bowman
Pat Hammer
Soleil Gregg
Kimberly Hambrick
Jane Hange
Marian Keyes
Pat Penn
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit Org
U.S. Postage Paid
Permit No. 743
Pensacola, FL
32501

VELMA MITCHELL
ERIC
PO BOX 1348
CHARLESTON WV 25325

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 16
No. 3
•
November
1997

Rural Schools in a Global Economy

by Hobart Harmon, AEL Staff

More than 45 percent of the nation's schools and half the local school districts are located in rural areas and small towns. Administrators in rural districts with small schools face many challenges—among them, how to provide the curriculum and extracurricular opportunities that will prepare all students for success in a global economy. Equally difficult is the dilemma surrounding the pursuit of state, federal, or global education goals. Parents and the community often question the relationship of such goals to the locally identified needs of *their students* and *their community*.

In a rural area, effective management practices and a keen sense of place are the cornerstones that enable a district administrator to think globally and act locally—all the time keeping hold of his or her leadership position. What are some of these practices? And can we still create and nurture community schools in a society captivated by a global economy?

The superintendent of a rural district in Virginia recently sought help from AEL in developing his ideas for improving educational opportunities at a small K-12 school—fewer than 100 students—located on a mountain top. An AEL colleague and I conducted a telephone conference call with several rural superintendents across the nation to discuss key issues and practices for meeting the needs of such a school. We used results of the conversation to develop a questionnaire and conduct a national study of superintendents to find out how they coped with similar problems (rural area, small school, limited budget). The practices identified were grouped into three categories: fiscal practices, staffing issues, and extracurricular activities. Within each category, the practices are listed in order of frequency, beginning with the most-often mentioned.

Fiscal Practices

- **Seek bids and compare pricing for all purchases.** Not generally sought by large suppliers, small school systems tend to remain loyal to their current suppliers. Using a bidding process, distrsicts can generate substantial savings, especially when all schools in the district consoli-

---

Reprinted with permission from the October 1997 issue of *The School Administrator* magazine.

AEL
more than
30 YEARS
OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

In this issue:

RESEARCH NOTES
"Redesign" of Urban School Districts Calls for State Policies That Encourage Local Efforts, p. 3
Time and Money Lacking for Teachers to Use Performance Assessments Effectively, p. 4
To Prepare High School Students for Work, Target Services to Students' Total Needs, p. 5
Funding, Personnel Constraints Limit Reform Program Dissemination, p. 5
Performance Assessments Highlight Student Reasoning and Thinking in Science, p. 6

NOTEWORTHY
Early Childhood Institute Releases *Including Your Child* Booklet and Progress Chart, p. 7
Exemplary Professional Development Programs Sought, p. 7

INSIDE AEL
Meaningful School-to-Work Experiences for Rural Youth? YES, it can be done! p. 8
AEL Opens Office in Arlington, VA, p. 9

FOCUS ON INSTRUCTION
Fish Gotta Swim in Model Agricultural Science Program, p. 10

RC 021111

date their bid requests. Even greater savings may be realized when several districts unite in such a process. Many regional education service agencies and some state departments of education provide this service. Suppliers are also very sensitive to comparison pricing.

- **Pay all bills promptly where discounts are available.** Some vendors provide a discount for prompt payment. The district's finance office may have to obtain special permission from the governing board to allow timely payments where discounts apply.

Checklist Helps in Planning Rural Schools

"Planning Schools to Serve Rural Communities," a new resource from The Rural Center at AEL, discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas. The document also contains a checklist for the leadership of rural school districts to use in developing a community school. Listed here are items from the checklist that relate to a rural school district involved in a facility renovation or building project.

- Educators, community members, and students work together to identify needs for any new construction or renovation.
- Plans include a provision for skilled community volunteers to help construct new facilities.
- "Ownership" by the community is secured before the local board of education approves new construction.
- The school helps provide the community with access to communications technology.
- The school helps meet the leisure recreational and wellness needs of the community.
- The facility fits into the landscape. It looks like it belongs where it is located and not like it is a visitor from some other land or culture.
- The school actively seeks opportunities to use the community as part of its curriculum.
- The architect being considered by the school board has designed facilities previously that fostered healthy relationships between a school and its rural community.
- The school is or will be small enough to serve its students and community well.
- Transportation arrangements allow all students to participate in extracurricular activities, and the school is located within convenient driving distance of those it serves.

Readers may request a single copy of "Planning Schools to Serve Rural Communities" from AEL's Distribution Center at no charge. (See the order form that accompanies this issue.)

- **Be aggressive in energy conservation measures.** Utilities are typically a high-cost area for smaller districts, particularly those with older facilities, which are often energy wasters. Start by asking school personnel and students to help save energy. Placing timers on heating and cooling systems can save energy when buildings are not in use. Consider requiring after-hours users of facilities to pay for actual energy costs. Conduct an energy audit and develop a plan for becoming energy efficient.
- **Join a regional education service agency or a consortium that provides special services and programs.** Such agencies may provide many cost-effective services, such as sharing specialized personnel—speech therapists, psychologists, technology staff, and purchasing agents—that often are required but not easily affordable by small districts. Forming consortia to provide programs or purchase needed goods and services makes education and budgetary sense.
- **Increase the student count.** Since most states allocate funding on a per-pupil basis, increasing attendance generates more funds, and therefore more personnel. This might be accomplished by implementing all-day kindergarten or incentives to increase attendance at all levels. One teacher can be a significant addition in a small school, especially when assigning bus, lunchroom, playground, extracurricular, and other personnel duties.

Staffing Issues

- **Consider obtaining waivers from state certification requirements.** Teacher certifications are becoming more and more specialized, especially at the secondary level. The cost of staffing a variety of specialty areas could prohibit small, rural schools from offering some courses. Some states are allowing waivers from certification if schools can provide evidence that they can offer a course that meets state criteria. For example, in the absence of a certified physics teacher, a school might offer the course from its science teacher, who may very well be qualified, but not certified, to teach physics.

- **Obtain federal or state grants to fund key personnel.** Small, rural schools may be eligible for grants if they are in an area classified as high poverty. Grant writing may be a laborious process, but creativity and resourcefulness is synonymous with rural folks. Grants for special-needs students and for enhancing the school's curriculum enrich the entire school.

- **Redirect district funds to the school's priorities.** The value of planning and prioritizing is well known to small school systems. Limited resources require directing funds toward the schools' major objectives. Involving school staff in developing such goals and objectives can put schoolwide support behind the allocation of limited funds.

- **Increase use of community volunteers for nonteaching duties.** Rural schools are also community schools. Getting help from volunteers to perform nonteaching duties frees up time for staffs who probably are already overburdened and saves money for the district in some areas.

Extracurricular Activities

- **Pay teachers a supplemental salary to perform extracurricular duties.** Supplemental pay rarely equals the teacher's regular rate, but the additional money is appreciated, and it conveys value for the teacher's time. Students benefit greatly from the extracurricular activities in a small rural school.

- **Provide students with transportation to participate in after-school activities.** Rural districts often have students who must travel long distances to get to the school. An activity bus that runs on a scheduled route after school throughout the district enables many students to participate without placing a hardship on their families.

- **Allow students to participate at other schools in the district.** Small rural schools find it difficult to offer a wide range of sports for boys and girls, and some schools may not have enough students to even support a sports program. Combining sports programs allows for expansion of offerings, enhances the quality of the teams, and provides opportunities that may not otherwise be possible.

- **Use community volunteers to conduct activities.** Community members sometimes are willing to support their school's activities. Small rural schools rarely have the personnel to support all the activities needed to meet student interests. Community members can fill this void to enrich the curricular and extracurricular experiences of students in accordance with state and county guidelines.

RESEARCH NOTES

"Redesign" of Urban School Districts Calls for State Policies That Encourage Local Efforts

Without abandoning the popular "local control" aspect of education decision making, state-level policy makers have an important role to play in addressing the chronic poor performance of urban school systems.

"The urgency of the matter and the complexity of the issues require new kinds of collaboration between city and state, coupled with new kinds of policy," write researchers at the Education Commission of the States. A publication from ECS outlines several key policy initiatives state policy makers can invoke to help educators redesign urban districts.

The researchers consider initiatives that pertain to four categories: governance, funding, school choice, and accountability. In describing various options, the researchers emphasize how policy makers can encourage and empower the efforts of those more closely involved—teachers, parents, and students—rather than supplanting or overlooking "local" input and responsibility.

The authors acknowledge that "no state has yet undertaken a full partnership with an urban district to bring about systemic changes" to drastically improve learning opportunities for students.

However, they continue, the large-scale restructuring efforts currently underway in three urban school districts—Baltimore, Chicago, and Minneapolis—offer both state and city leaders opportunities to investigate, monitor, and become aware of successful strategies that can help them pursue "the next crucial stage of urban school improvement." In-depth profiles of the three districts are included in the publication.

To Order: *Redesigning the Urban School District* is available from the Education Commission of the States, 707 17th St., Suite 2700, Denver, CO 80202-3427; (303)299-3692 (cite order no. UE-97-4, 16 pages, $6.50 plus postage and handling, prepaid).

Time and Money Lacking for Teachers to Use Performance Assessments Effectively

Based on interviews with teachers, reading specialists, and supervisors in one state that administers performance assessments to students, researchers Peter P. Afflerbach, Janice F. Almasi, John T. Guthrie, and William D. Schafer conclude that several barriers are making it difficult to implement the changes in instruction and curriculum that are needed to make the most of performance assessments.

Foremost among them is a lack of time and money. Teachers were especially concerned about not having enough time to plan with their colleagues or to discuss their experiences with each other. They also claimed they don't get enough inservice training to help them learn how to make the changes.

Performance assessments in reading—those that require students to demonstrate reading comprehension by writing essays and completing other open-ended tasks—are heralded by many states as a way to drive changes in reading instruction and curriculum. But even as more and more states require schools to administer performance assessments, their failure to provide financial and other types of support threatens successful implementation of curricular improvements.

"The participants in this study made clear the fact that change takes time, and change as massive as redesigning curriculum in accordance with a performance program requires considerable efforts and expenditures," summarize the researchers.

Some of the teachers added that their state's education department never explained the purpose or nature of the assessment. Nor did it explain how teachers and schools were to move students toward performance assessment goals. The researchers note that, although this may be because the state wanted to encourage local control over the change, their study "did not detect a communication system that could support such an arrangement."

To Order: *Barriers to the Implementation of a Statewide Performance Program: School Personnel Perspectives* was produced by the National Reading Research Center, University of Georgia, Athens, GA 30602-7125. The document is available from ERIC Document Reproduction Service, 7420 Fullerton Rd., Suite 110, Springfield, VA 22153; 800/443-3742; document no. ED392020, $9.14 plus $3.75 shipping prepaid.

To Prepare High School Students for Work, Target Services to Students' Total Needs

Despite the roles that apprenticeships, school-to-work partnerships, and career education play in preparing students for work, let's not forget about the most basic factor: keeping students in school. Increasingly, this may translate into providing child care, transportation, and other general services in addition to more specific career and job-related programs.

A new publication by the National Center for Research in Vocational Education describes a complete model of school services that helps students stay enrolled and succeed in school. The research-based model, created by Carolyn Maddy-Bernstein and Esmeralda S. Cunanan, responds to the range of students' needs before, during, and after high school.

Basic services included in the model are: (1) counseling to target student achievement, self-esteem, and other factors that affect post-graduation plans; (2) psychological services that enable school staff to place students in appropriate programs; (3) social work services that may offer students help with personal problems; (4) school-based health services that treat students and provide preventive health information; (5) child care assistance to enable student parents to finish high school; (6) transportation to and from school; (7) community-based services; and (8) food to ensure a constant source of nutrition.

Before students enroll in high school, the researchers recommend that junior high staff make students and parents aware of educational opportunities and programs; assess students' learning styles, career interests, and aptitude; and help students become aware of careers and initially explore them.

These kinds of services can function as a prelude to more traditional academic advising, skills evaluation, career education and planning, mentoring, and job placement assistance. Further, schools can opt to continue job placement and follow-up on careers of former students to "gain valuable information that may be used in evaluating program effectiveness and for program improvement," say the authors.

To Order: *Student Services: Achieving Success for All Secondary Students* is available from the National Center for Research in Vocational Education, Materials Distribution Service, Western Illinois University, 46 Horrabin Hall, Macomb, IL 61455; 800/637-7652 (cite order no. MDS-1007, 58 pages, $8.50 prepaid).

Funding, Personnel Constraints Limit Reform Program Dissemination

The "key limitation" in implementing schoolwide reforms is "the limited national capacity to provide schools with well-researched models backed by networks of trainers, demonstration schools, materials and other requirements," the Center for Research on the Education of Students Placed at Risk concludes.

Researchers Robert E. Slavin and Nancy A. Madden discuss efforts to disseminate the center's "Success for All" model of schoolwide reform. Designed for schools educating many at-risk children, Success for All combines an innovative reading curriculum for early grades with family support teams and extensive professional development. The researchers are the architects of the program. The program is now in about 450 elementary schools nationwide.

Success for All, like many schoolwide reforms, requires a solid commitment to professional development and significant financial support. Districts usually start their efforts in high-poverty schools that have substantial Title I funding.

The authors describe how their experience in disseminating the program offers some widely applicable lessons about professional development and school reform. Their experience suggests that the two crucial components of a successful dissemination effort are a corps of "talented, dedicated trainers" and local and national networks of schools that can provide "technical and emotional support" to each other.

According to the report, the center has found it difficult to recruit enough trainers to meet demand, even with the addition of trainers working in other parts of the country and at three regional training centers. The authors discuss the difficulties and successes they encountered in recruiting regional laboratories, universities, and other education institutions as partners.

They call for greater federal support for research, dissemination, and professional development, and giving school-level staff control over some professional development funds.

To Order: *Scaling Up: Lessons Learned in the Dissemination of Success for All* is available from the Center for Research on the Education of Students Placed at Risk, Johns Hopkins and Howard Universities, 3003 N. Charles Street, Suite 200, Baltimore, MD 21218; 410/516-8808 (33 pages, $6.50 prepaid).

Performance Assessments Highlight Student Reasoning and Thinking in Science

Beyond evaluating students' mastery of desired knowledge and skills, performance assessments reveal students' reasoning and thinking processes, giving teachers valuable feedback that can inform their instruction, says a publication by the National Center for Research on Evaluation, Standards, and Student Testing.

Researchers Gail P. Baxter, Anastasia D. Elder, and Robert Glaser observed fifth-graders taking a science performance assessment. The assessment required students to identify which components of electrical circuits were inside several "mystery" boxes. Students did so by connecting each box to batteries, light bulbs, and/or wires and watching for expected results.

Students who performed well on the assessments scientifically tested their hypotheses and demonstrated their understanding of electrical circuits. For example, Carlos connected each box with a battery and a bulb and, based on the outcome, knew which components to test next. Because he knew that the boxes could contain either one or two batteries—and that two batteries would make the test circuit's light bulb glow more brightly—Carlos created an external circuit to compare the relative brightness of all the bulbs.

In contrast, students with a more limited understanding of circuits engaged in trial and error, randomly hooking components up to each box. Raymond, for example, only connected a bulb in the circuit to each box but "did not appear to recognize the limitations of his approach," the researchers observed. His actions tell the teacher that Raymond didn't understand how to test the boxes in a scientific manner.

Performance assessments "highlight opportunities for instruction to foster reasoning and thinking with acquired knowledge .... Activities that differentiate more from less proficient performance can support the development of thinking and reasoning in the elementary science classroom," the researchers assert.

To Order: *Assessment and Instruction in the Science Classroom* is available from the National Center for Research on Evaluation, Standards, and Student Testing, 10920 Wilshire Blvd. #900, University of California, Los Angeles, CA 90024 (cite report no. TR-418, 17 pages, $2.50 plus shipping and applicable sales tax; call Kim Hurst at 310/206-1532 for information).

Use this form to order materials **from AEL,** as well as from the **ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)**. Please check (✓) your selections and complete the shipping information below. **Be sure to include payment for priced items.**

Please add my friend or colleague to your mailing list: (please print legibly)

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

AEL Order Form

☞ Pull out ✍ Fill out ☒ Mail back

Shipping information: (please print legibly)

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

Postage Required

Daytime phone or e-mail: ______________________________

(in case we have a question about your order)

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

(Some documents can be downloaded from our Web site: http://www.ael.org)

___ **ADHD—Building academic success (1996)**

This issue of *Policy Briefs* examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

___ **Children of la frontera: Binational efforts to serve Mexican migrant and immigrant students (1996)**

Who are the children of *la frontera*? What do we need to know to help these youngsters become the next group of U.S. college students, technicians, professionals, artists, and participating citizens? These are the questions more than 20 respected practitioners and scholars address in the chapters of this book. The authors present information about the historic and current context of relations between Mexico and the United States, schooling in Mexico, binational education and health programs, and effective practice in the classroom and in working with families. $18; 352 pp.

___ **Community service/service learning: An implementor's guide and resource manual (1996)**

This guide for educators and community/business representatives describes four service learning models, suggests activities for various school levels, highlights 27 Kentucky projects, and provides information about other resources and organizations. $14; 187 pp.

___ **Continuity in early childhood: A framework for home, school, and community linkages (1996)**

The *Framework* provides communities with a means to assess efforts to link and integrate early childhood and early elementary school services. $15; 139 pp.

___ **Dissolving the boundaries: Planning for curriculum integration in middle and secondary schools (1995)**

This publication helps secondary school faculties prepare for curriculum integration through a four-step process. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10; 63 pp.

___ **EdTalk: Checking up on early childhood care and education (1995)**

This easy-to-use checklist synthesizes information from early childhood research and development. Also included are highlights of key federal laws and steps to successful implementation. $5; 38 pp.

___ **EdTalk: Plugging in: Choosing and using educational technology (1995)**

This document helps educators choose technologies that support student learning. $5; 46 pp.

___ **EdTalk: What we know about reading teaching and learning (1996)**

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited-English-proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5, 70 pp.

___ **Facilitating systemic change in science and mathematics education: A toolkit for professional developers (1995)**

The purpose of this toolkit is to broaden and strengthen the expertise of individuals who help teachers and schools improve science and mathematics education. $45; 578 pp.

___ **Inclusion of special needs students: Lessons from experience (1996)**

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp.

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free**

___ ___ **Inclusion (1996)**

______ **Respectful Learning Environments (1997)**

___ **Increasing student access to mathematics and science: A guide for classroom equity projects (1995)**

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. $5; 44 pp.

___ **Interdisciplinary units with alternative assessments: A teacher-developed compendium (1995)**

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of Virginia teachers received training, developed the units and assessments, and field tested them with their students. $12; 141 pp.

___ **Just beyond the classroom: Community adventures for interdisciplinary learning (1995)**

The outdoor adventures described here are organized around themes such as science, math, social studies, language arts, and others. To help teachers turn these adventures into meaningful interdisciplinary learning experiences, author Clifford Knapp includes background information, possible outcomes, activities, reflection questions, and performance assessments. He also explains how this type of interdisciplinary learning relates to historic and current education practice and reform. $12; 108 pp.

___ **Local schools of thought: A search for purpose in rural education (1996)**

The fictional story of a high school teacher's search for purpose in his rural classroom is the vehicle for this book, which addresses the question that ought to be at the heart of the American school reform debate: Why do we have schools? $12; 108 pp.

___ **1997 Native education directory: Organizations and resources**

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; Congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover; ISBN 1-880785-17-X.

BEST COPY AVAILABLE

___ **Nonlinear evolution of school-based decisionmaking in Kentucky (1996)**

This five-year study of how school councils evolved in four rural Kentucky school districts addresses three major areas: (1) shared decision making among represented role groups, (2) factors that facilitate or impede shared decision making, and (3) kinds of decisions made and their impact on schools. $5; 31 pp. (First 200 in print available at no charge.)

___ **Notes from the field: Five years of education reform in rural Kentucky, Vol. 5, No. 1 (1996)**

This publication is designed to provide ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. In this issue, findings of AEL's five-year study are summarized. $2; 8 pp.

___ **Planning schools to serve rural communities (1996)**

This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas (see story, page 2). Free, 8 pp.

___ **Preventing antisocial behavior in disabled and at-risk students (1996)**

This issue of *Policy Briefs* focuses especially on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2, 12 pp.

___ **Putting the pieces together: Comprehensive school-linked strategies for children and families (1996)**

This guidebook helps schools, families, and communities develop partnerships that help children and youth, families, and neighborhoods succeed. $8; 98 pp.

___ **Rural education directory: Organizations and resources (1996)**

This directory includes information about national organizations; federal government programs; state organizations; state department of education rural program coordinators; state data centers; and rural journals. $6; 65 pp.

BEST COPY AVAILABLE

___ **Scope it out: Standards-based microscope lessons for the middle school (1996)**

Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource contains lessons developed by classroom teachers and classroom activities reflecting the *National Science Education Standards*. $5; 62 pp.

___ **Teacher perceptions of and strategies for inclusion: A regional summary of focus group interview findings (1996)**

In 16 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. $15; 240 pp. State summaries of interview findings are also available at no additional cost (one state summary per purchase). *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings* from (KY, TN, VA, or WV).

___ **The public school superintendency: A comprehensive profile (1996)**

This historical overview of the superintendency illustrates that the role has been responsive to the social and economic conditions that shaped the development of U.S. public schools. The paper explores superintendents' perceptions of and preparation for their roles. $7; 60 pp. (First 200 in print available at no charge.)

___ **The Telecommunications Act of 1996: A Guide for Educators (1997)**

The Snowe-Rockefeller-Exon-Kerrey Amendment of the Telecommunications Act of 1996 provides telecommunications discounts to schools. This issue of *Policy Briefs* describes what schools should know to be ready to take advantage of the discounts. On-line version, http:www.ael.org/rel/policy/fcc97.htm. Print version, $2, 14 pp.

___ **Understanding and identifying children with ADHD: First steps to effective intervention (1995)**

This issue of *Policy Briefs* reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2; 8 pp.

___ **Voices from the field: Secondary school inclusion in the AEL Region (1996)**

State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. This audiotape presents interviews with principals and special educators at these schools. $10; 45 min.

AEL Information (free)

☐ AEL Products & Publications Catalog

☐ Family Connections I and II—take-home learning guides for young children

☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons

☐ QUEST—a process to help schools along the improvement journey

☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

---

Information Search Packages

These information packages contain a variety of current resources on block scheduling and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources.

___ **Block scheduling: (1996) $15, 142 pp.**

___ **Promoting safe schools (1996) $15; 178 pp.**

___ **Inclusion (1995) $16; 219 pp.**

Workshop Packages

___ **Systemic reform in mathematics and science: A workshop for schools and communities (1995)**

Information and hands-on activities in this workshop increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and role of partnerships in reform. The step-by-step guide and videotape highlight legislation and trends. $100 (without training), 132 pp. For assistance with training, contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

___ **Marginal learners: Identification, prevention, and intervention (1995)**

Each of the six content modules in this workshop package is designed as a 3- to 4-hour workshop that can be presented individually or as part of a series. The modules are sequenced, from identifying marginal learners to examining and adapting school and district policies and practices. Topics include the needs of marginal learners, proven practices, and planning improvement efforts. $50; 362 pp.

Low-Cost Books and FREE Resources on
Rural and Small Schools

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

★___ ***Finding Their Own Place: Youth from Three Small Rural Communities Take Part in Instructive School-to-Work Experiences***

By Bruce A. Miller and Karen Hahn, 114 pp, 1997, soft cover, ISBN 1-800785-18-8, $12.00

The experiences of three rural and remote communities challenge common beliefs about the lack of opportunity for rural youth to participate in meaningful and instructive school-to-work experiences in their own small rural communities. But to create such opportunities, schools, community members, and policy makers had to work together. The author describes how the programs succeeded, including planning phases and creating policy support for innovative approaches. Book includes advice and resource information for readers who would like to try similar approaches in their own communities. (See story, p. 8)

___ ***Sustainable Small Schools: A Handbook for Rural Communities***

1997, 150 pp., soft cover, ISBN 1-880785-16-1, $15.00

This handbook helps community members and educators work together to improve small, rural schools. It is written in a readable style developed for a lay audience, but also includes the concerns that teachers and administrators face when working with community members. Chapters cover the historical and political factors affecting rural, small schools, curriculum considerations, model strategies, guidance on collaboration, and use of technology. An extensive resource chapter provides information about partnerships; coalition building; needs assessment; consolidation research; options such as Foxfire, four-day week, technology, and more; and tools for finding information.

___ ***Local Schools of Thought: A Search for Purpose in Rural Education***

By Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12.00

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort to improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

> *"The nature of the learning that is to proceed and the conditions necessary to that learning are the foci of* Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools."* — John I. Goodlad

___ ***1996 Rural Education Directory: Organizations and Resources***

Compiled by Patricia Cahape Hammer, 1996, 58 pp., soft cover, $12.00

Handier than ever with a detailed index, this new edition of our popular directory includes: national organizations, associations, networks, centers, and clearinghouses; federal government agencies and Congressional offices; rural journals; state organizations, National Rural Education Association affiliates, and other groups involved in rural education at the state level; and state department of education rural program coordinators and state data centers.

FREE ERIC DIGESTS

RURAL EDUCATION

___ ★ *Parent and Community Involvement in Rural Schools.* S. Maynard & Aimee Howley (1997), EDO-RC-97-3

___ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

___ *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* G. Huang (1995), EDO-RC-95-2

___ ★ *The National Information Infrastructure: Keeping Rural Values and Purposes in Mind* by B. Barker & C. B. Howley (1997), EDO-RC-97-4

___ *Perspectives on Rural Child Care.* B. A. Beach (1997), EDO-RC-96-9

___ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

___ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

SMALL SCHOOLS

___ *Affective and Social Benefits of Small-Scale Schooling.* K. Cotton (1996), EDO-RC-96-5

___ *Curriculum Adequacy and Quality in High Schools Enrolling Fewer than 400 Pupils (9-12).* C. Roellke (1996), EDO-RC-96-7

___ *Ongoing Dilemmas of School Size: A Short Story.* C. Howley (1996), EDO-RC- 96-6

★ Recently published.

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list. ***Free***

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants.

Early Childhood Institute Releases *Including Your Child* Booklet and Developmental Progress Chart

Families of children with special needs often have questions about how to help their children and may not always know where to go for answers. A new publication from the U.S. Department of Education's National Institute on Early Childhood Development and Education can lead families to people and places that can help. The easy-to-read book, *Including Your Child*, covers the first eight years of a child's life and contains:

- hints to help in the search to meet a child's special needs;
- a developmental progress chart that gives general milestones in a child's development between one month and five years of age;
- an extensive resources section that includes associations and organizations, hotlines, Internet sites, parent training and information centers, federal agencies, and state government information; and
- information about laws that have been passed to help get the supports and services a child may need.

Single copies of the book and poster are available free on a first-come, first-served basis from the National Library of Education, 800/424-1616, fax 202/219-1696. Additional copies of the book and paper are available from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 (stock number 065-000-00993-5, $10; 25% discount for orders of 100 or more); credit card orders by fax: 202/512-2250. The booklet is also available at http://www.ed.gov.

Exemplary Professional Development Programs Sought

The nation's Regional Educational Laboratories are providing assistance to two efforts to identify exemplary professional development programs—one by the U.S. Department of Education, and the other by the National Staff Development Council.

U.S. Department of Education

U.S. Secretary of Education Richard Riley announced November 6 that the department is seeking applications for its National Awards Program for Model Professional Development. Part of an ongoing effort to identify and honor excellence in education, the program recognizes schools and school districts that provide exemplary professional development opportunities for teachers and other educators.

The department is seeking exemplary models of professional development based on identified needs of a school or district as described in its goals and objectives. Applicants must demonstrate a link between their goals, professional development activities, changes in instruction, and improved student learning. The experiences of the recognized programs will be disseminated nationally to assist others.

*Principles of Professional Development**

- Focuses on teachers as central to student learning, yet includes all other members of the school.
- Focuses on individual collegial, and organizational improvement.
- Respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community.
- Enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards.
- Promotes continuous inquiry and improvement embedded in the daily life of schools.
- Is planned collaboratively by those who will participate in and facilitate that development.
- Requires substantial time and other resources.
- Is driven by a coherent long-term plan.
- Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning, and this assessment guides subsequent professional development efforts.

---

*The Principles of Professional Development were developed through a public process to ensure that the Department of Education's efforts in professional development reflect the best available research and exemplary practice.

Applicants will be expected to address the Principles of Professional Development (see box), which were developed through a public process to ensure that the department's efforts in professional development reflect the best available research and exemplary practice.

Eligibility is open to public and private schools and school districts where professional growth is an integral part of school culture and where the needs of all students are addressed. Up to ten winners will receive cash awards and be recognized at a ceremony in Washington, D.C. Applications can be obtained by contacting the department: Fax 202/219-2198; e-mail Sharon_Horn@ed.gov; or by downloading the application from the department's or (www.ed.gov) or AEL's Web site. **Completed applications must be received by January 15, 1998.**

National Staff Development Council

The National Staff Development Council's (NSDC) Results-Based Staff Development for the Middle Grades Project is seeking exemplary staff development programs. NSDC will publish a resource publication that recognizes programs that have resulted in increased student learning. Content-based, middle-level (grades 5-8) staff development programs in language arts, mathematics, science, and social studies will be considered. Complete descriptions of programs and results for students may be submitted by schools, school districts, universities or colleges, states, or other agencies for consideration by the National Advisory Panel. Exemplary programs meeting the established criteria will be included in a guide to be released in 1999 that will help others replicate or adapt the successful ideas in their settings.

NSDC is working in partnership with the National Association of Secondary School Principals, the National Council for the Social Studies, the National Council of Teachers of English, the National Council of Teachers of Mathematics, the National Middle School Association, the National Science Teachers Association, the Regional Educational Laboratories, and ERIC.

For more information, contact Joellen Killion, Project Director, Results-Based Staff Development for the Middle Grades, 10931 W. 71st Place, Arvada, CO 80004-1337; 303/432-0958; Fax 303/432-0959; killionj@aol.com. The Program Nomination Form can be found on AEL's Web site at: http://www.ael.org/rel/schlserv/modpgms.htm. **Descriptions are being accepted through December 1998.**

Meaningful School-to-Work Experiences for Youth in Small, Rural Communities? YES, it can be done!

A new publication from the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) at AEL documents education practices that hold promise for rural communities struggling to survive in economically and socially difficult times. *Finding Their Own Place: Youth in Three Small Rural Communities Take Part in Instructive School-to-Work Experiences* was developed by ERIC/CRESS, in collaboration with the Education and Work and the Rural Education programs at Northwest Regional Educational Laboratory.

Citing the successful experiences of the three communities, authors Bruce A. Miller and Karen Hahn challenge common beliefs about the lack of opportunity for rural youth to participate in meaningful and instructive school-to-work experiences in their own communities. But to create such opportunities, they emphasize that schools, community members, and policy makers must work together. Miller and Hahn describe how the three programs succeeded and offer timely advice to other small, rural communities considering similar endeavors.

The publication is divided into three sections: Chapter 1 briefly reviews the research on school-to-work issues, focusing on how the unique qualities of rural communities create special challenges for the development and implementation of school-to-work programs.

Chapters 2 through 4 present portraits of three rural schools that have worked closely with their communities to engage youth in experiences that benefit their communities and prepare youth to be productive members of a democratic society.

- Liberty Bell High School is located between two small towns in the state of Washington, with a combined population of less than 1,000. Yet, every year for the past six years, the community has offered more than 200 courses for youth, ranging from investment banking to wildlife biology to ski patrol.
- Students in Saco, Montana, teach evening computer courses to members of their small, remote community of less than 250 people. Additionally, although only 64 junior- and senior-high students are enrolled at the school in Saco, they learn about other parts of the country by participating in more than 50 field trips every year, including state and national conventions, music festivals, academic competitions, and training programs.
- In Broadus, Montana, students participate in a rural development course in their county high school (total enrollment 180), which helps them assume active roles in community council meetings and task forces that have resulted in successful development projects.

The conclusion of each portrait includes a discussion of how lessons learned in these communities can be applied in other locations.

Chapter 5 addresses the importance of policy development as a tool for garnering support for school-to-work program development and for helping sustain innovative changes.

This resource can help rural schools and communities—especially those that are remote and small—think about new ways of collaborating.

- Educators will learn about promising practices for school-to-work programs and how schools and communities can work together to better meet the needs of youth. They will also discover strategies for linking and integrating community-based learning opportunities with academic subjects.
- Administrators will learn the importance of building a strong support base for bringing about school reform. They will also find successful strategies for sustaining the changes over time.
- Community development practitioners will learn to see the school as an important player in addressing community needs.
- Community members—parents, students, and other residents—will gain a greater appreciation and understanding of what it means to live in a rural setting. They will learn how academic goals can be achieved through community-based learning experiences and expanded through distance technology.

Ordering information: *Finding Their Own Place: Youth in Three Small Rural Communities Take Part in Instructive School-to-Work Experiences*, by Bruce A. Miller and Karen Hahn, is available from the ERIC Clearinghouse on Rural Education and Small Schools (ISBN 1-880785-18-8, 114 pages, 1997, $12.00). (See the order form that accompanies this issue.)

AEL Establishes Outreach Locations in Virginia and Tennessee

In an effort to further develop and strengthen linkages between educators and AEL's resources, two outreach locations have been established in the Region. An AEL satellite office in northern Virginia opened in September; the first AEL resident director position was created in Tennessee at about the same time.

The decision to open a satellite office in northern Virginia was motivated by a desire to enhance AEL's offerings to the more urban areas of the Region. The close proximity to metropolitan areas opens opportunities for building alliances with universities, associations, and individuals expert in serving the needs of nonrural schools. The location also puts AEL in a position to compete for resources dedicated for urban areas, enhancing the capacity to serve all clients in the Region.

The new office—AEL • Arlington—is located in the Rosslyn Metro Center, 1700 North Moore Street, Suite 1275, and can be reached by calling 703/276-0200 or 800/624-9120. Pamela K. Buckley is director of the Arlington office. Both the Eisenhower Regional Consortium for Mathematics and Science Education and the Region IV Comprehensive Technical Assistance Center operate from the new northern Virginia location.

Peggy F. Harris fills the newly created position of Resident Director for Tennessee. Harris is a former member of AEL's Board of Directors, serving a term as AEL president, and most

(continued on page 12)

Fish Gotta Swim in Model Agricultural Science Program

By Topper Sherwood

FOCUS ON INSTRUCTION

Featuring articles about teachers in the four AEL states—this issue: West Virginia

A school of one hundred trout, none more than six inches long, snaps at the flakes dropped into their tank by teacher Tracy Stutler. It's a rarity that Stutler is feeding the fish today. His students carry the keys to Charles Town Junior High School's new aquacultural laboratory, and they maintain their own schedule for year-round feedings and water-quality readings. In return, the fish—swimming in a complex bio-system supported by pumps, air filters and electronic monitors—have helped Stutler's students win more than 30 science awards during the project's initial two years.

"It's been exhilarating," says Stutler. "It's extremely exciting to see the students get so engrossed in what they're doing...." Stutler and his students initiated the aquaculture project during the summer of 1995, after he'd taken part in a series of inservice seminars on "Using Aquaculture in the Classroom," offered by West Virginia University.

"I went in with a mild sense of curiosity," he recalls. "By the third or fourth class, I decided I just had to do this."

Stutler saw the lab as a means of incorporating "real-world" problems into the curriculum, while boosting interest in a struggling agricultural science program. He and his students were soon on the road, visiting other labs and aquatic research stations. With the help of a $1,500 grant from a local agricultural-extension agency, they were able to build their own laboratory in a small, isolated room of the school. Materials and expertise were supplied by a nearby Department of Interior fisheries center and a local environmental-research outfit.

"We were all new to this," remembers former student John Aliucci. "We were just getting our feet wet....literally."

The result is a home for hundreds of fish. Four 150-gallon tanks are joined by a web of pipes and tubing leading to a system of aeration pumps and filters. The apparatus is meant to mimic natural conditions for the trout and several schools of hybrid striped bass, all test subjects for seafood production. Stutler and his students vividly recall summer 1995, when they'd hooked everything together and the first bass arrived—three hundred of them, shipped in huge plastic bags, packed in foam-insulated crates by a supplier in Arkansas.

"The freight cost more than the fish," notes Aliucci, drawing a nod of agreement from fellow student Todd Wilt.

"The plane ticket was a killer," Wilt continued. In fact, the plane ride itself had been fatal to some fish. Others did all right for a few days, but then large numbers of them began going belly-up. ("You learn not to be personally attached," says Wilt philosophically.) The event sent students scrambling for information with an energy that holds them to the project today.

"It was stressful conditions," says Wilt of the dying bass. "They weren't adapting to the new environment."

The stress of relocating, he says, made the fish more susceptible to disease, including particular bacteria to which they are prone. The students launched more biochemical experimentation, treating the water first with potassium permanganate and later with salt solutions. Aliucci's research explored the limits of the new lab's biofilter, to see under what conditions it might be overexerting itself. (He's now exploring questions of water temperature.) Wilt did a

Tracy Stutler feeds a school of trout while Todd Wilt and John Aliucci look on.

student T-test to see whether the fish might improve their condition with exercise. He constructed an independent tank, in which he taught a group of bass to swim through a maze for food. After a regimen of "water aerobics," Wilt was able to measure the oxygen-carrying capacity of the animals' blood, comparing the results with that of a control group.

"The fish that exercised became better able to handle stress," he concludes, pointing to the numbers that back it up. "They have a stronger immune system and can tolerate a higher level of exertion."

All this involved a complicated line of inquiry, and supplied Wilt and Aliucci with science projects that helped them sweep several competitions and come up with papers that are just this side of publishable, according to their advisors. Altogether, the aquaculture lab incubated four science projects the first year, winning six awards at the local and regional levels. The second year, six agri-science projects won twenty-eight awards, including thirteen first places, and four Overall Grand Project Awards, with invitations to the International Science & Engineering Fair (for Wilt) and the National Agri-Science Competition (for Wilt, Aliucci, and several others). Aliucci was invited to present his analysis of the lab's "closed-loop" bio-system to the West Virginia State Science Symposium, an honor normally reserved for high-school students.

"These kids are doing just extraordinary work," says Wilson H. White III, head of the school's math department. White scans the lab data for real-life math problems for his own students—problems involving volumes, dimensional analysis, and rates of flow. Miscalculation, he reminds the young people, could have dire consequences for hundreds of fish.

"Teachers need to realize that mathematics is a tool," says White. "Unless you apply it to something that's *real*—something that's important and practical—it's just not much fun, and it's not very interesting."

Others are getting use from the laboratory as well. Chemistry students are testing the fishes' "turf" for nitrates, oxygen, and alkalinity. The

(continued on page 12)

Topper Sherwood is a freelance writer and publisher of educational resources in Martinsburg, West Virginia.

Eight Tips for Building Your Own Research Lab

- Start with a subject you know and love. It's hard to generate enthusiasm for something in which you have little or no interest.
- Scan your community/state for resources—granting programs, industries, etc., that might be relevant to your subject and project.
- Don't overlook that technical/vocational/"real-world" connection, including agricultural-extension offices. This can make project more interesting to students.
- Visit another facility, a role model, that will help you learn how easy or difficult your goals are. If you think you need more than one point of view, visit another facility.
- Get names of people who can offer potential resources. Learn about what they are doing and talk to them.
- Don't be afraid to seek funding and spend it on your project. In some cases, a $300 minigrant might be enough to get you started.
- Establish a track record, and look for opportunities to expand.
- Contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL about its technology minigrants of up to $1,000 for classroom teachers in AEL's four states.

Aliucci demonstrates the work of the aquaculture lab's biofilter. Wilt is in the background.

(continued from page 9)

recently served as interim head of the Department of Psychology at Tennessee State University. Earlier employment includes 29 years with Metro Nashville Public Schools as a teacher, school psychologist, and program evaluator. She knows both Tennessee education and AEL well. In her role as resident director, Harris is in ongoing communication with AEL developers and implementors and acts as an onsite liaison for effectively linking AEL resources with Tennessee's education efforts.

Harris, the first AEL employee to serve full-time in Tennessee, can be contacted in her Nashville office at 615/386-9842 or by voice mail at 800/624-9120. A permanent office location has not yet been established but is a possibility as the resident director position develops.

AEL's home office continues to be in Charleston, West Virginia. Information about AEL, its programs, and services is available by calling 800/624-9120, by e-mail at aelinfo@ael.org, or by visiting AEL's web site at http://www.ael.org.

(continued from page 11)

lab's bio-pump and filtration system offer lessons in physics, while expired members of the species are examined in biology classes. Students work up all statistical information with help from White, who teaches them how to grind out usable data from school computers.

"We hope the new lab will allow us to branch out," Stutler said, adding that aquaculture is the fastest-growing area of agriculture. He envisions more projects—including student-run businesses—in trout, 'ipia, baitfish, freshwater shrimp, eels, and especially ornamental koi. Ornamental fish and aquatic plants account for nearly 70 percent of the aquaculture industry in nearby Maryland, whose aquaculture industry increased from $7 million in 1990 to an estimated $18 million four years later.

The students' enthusiasm and achievement are paying off, both in terms of their education and winning support for their lab. They recently hosted county school board members at (what else?) a school fish fry.

"The students showed the board some of their projects," Stutler smiles. "They can put on quite a show."

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone
304/347-0400
800/624-9120
304/347-0487 (fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell
Executive Director
Carolyn Luzader, Editor

Editorial Board
Diana Bowman
Soleil Gregg
Pat Hammer
Jane Hange
Marian Keyes
Carla McClure
Pat Penn
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit Org.
U.S. Postage Paid
Permit No. 743
Pensacola, FL
32501

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 16
No. 4
•
December
1997

New Roles for Educational Service Agencies in Rural Education Reform

The top priorities of current school reform efforts often include developing content standards, aligning performance assessments with the new standards, training teachers to respond to changes in curriculum and assessments, and involving a broader spectrum of stakeholders in the management of schools. Rural schools are, as they should be, full partners in these processes.

Although recent studies have fostered an understanding and appreciation of the particular strengths of rural schools and communities, it is important to note that educators in rural places also face major infrastructural and organizational challenges as they implement reforms. These challenges cannot be ignored if states intend to succeed in meeting their school improvement goals because, even in some of the most urbanized states, substantial segments of the total school population attend rural schools. However, help for rural districts may be as close as the nearest educational service agency (ESA).

These agencies were formed in the 1950s to support rural school districts undergoing reorganization. Since state departments of education are typically located in urban centers, ESAs provided remote, rural school districts with access to the same resources available to city schools. In a new book published by AEL's Rural Center, *Expanding the Vision: New Roles for Educational Service Agencies in Rural School District Improvement*, author E. Robert Stephens says the agencies can serve an essential role today to rural districts as they face the challenges of systemic school reform.

Statewide networks of such agencies exist in nearly half of the 50 states, while various similar agencies—collaboratives, consortia, cooperatives, and clusters that serve two or more neighboring districts—exist in most other states.

The Rural School District Improvement Agenda

In his book, Stephens details the forces that are shaping current expectations of rural public education. The national and state reform movements have provided a variety of policy initiatives—some grounded in the school effectiveness research of the

AEL
more than
30 YEARS OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

RC021111

In this issue:

NOTEWORTHY
Schools Prepare to Submit E-rate Applications, p. 3

RESEARCH NOTES
Districts, Educators Need More Support in Implementing Standards-Based Reform, p. 4
To Learn More About Portfolio Assessment, Teachers Can Consult Annotated List of Articles, p. 4

Action Teams Help Baltimore Schools Expand Partnerships in All Directions, p. 5
Investing in Teaching Profession Pays Off in Student Achievement, School Improvement, p. 7

FOCUS ON INSTRUCTION
"Marshmuckers" Wraps Several Curriculum Areas Into One Exciting Program, p. 8

1960s and 1970s, and others in response to court decisions—that have expanded the concept of equal educational opportunity. Additionally, global economic forces have affected local economies by putting pressure on rural schools to become partners in rural efforts to revitalize local economies. Taken together, these forces have shaped an ambitious and demanding rural education reform agenda. In most states, it includes the following components:

- providing equal access to educational opportunity,
- achievement of high standards,
- site-based management,
- parental involvement and choice,
- promotion of education partnerships,
- promotion of the use of technology,
- school as community learning center,
- use of community to enrich curriculum, and
- school involvement in community development.

Agencies Serve Rural Districts

Educational service agencies across the country approach their mission of providing services to rural school districts in both common and divergent ways. By first describing some commonalities in current programming, Stephens lays the groundwork for considering future possibilities for agency programs and services.

The prominent role of ESAs in assisting rural districts in school reform was confirmed in a large study recently conducted by the North Central Regional Educational Laboratory, (Friedman & VanderPloeg, 1993) in its eight-state region. Educational service agencies were the most frequently cited external provider of basic services (e.g., student services and a range of school management and operations services) and capacity-building services (e.g., professional development, curriculum development, student assessment, technology acquisition and support, and school improvement planning). However, the same study found that 59 percent of rural principals thought they were not getting all of the services they needed to keep pace with reform initiatives undertaken in their respective states. This finding has implications for service providers and for the future of state education reform.

What Educational Service Agencies Must Do in the Future

The current school improvement agenda places great demands on educational service agencies. Though challenging, the demands present an unparalleled opportunity for the agencies to demonstrate to policy and local communities that they can be an indispensable, responsive, and accountable first-line support system for rural districts.

To meet these challenges, the service providers will need to reconsider fundamental ideas about their missions, overarching goals, and core objectives. The new pressures on rural districts, and those on public education generally, require that more service agencies pursue the twin goals of excellence and equity in a disciplined, systemic way. These conditions suggest that the agencies accept such challenges and begin exercising a leadership role they are uniquely positioned to play in their regions and in the larger policy arena.

An educational service agency, of course, cannot alone stem the ongoing socioeconomic and political forces affecting rural communities and their school districts. However, they can and must fully exercise their potential to help ensure that the playing field is level—as the transformation in rural America continues.

The apparent convergence of several circumstances suggests that a leadership role for ESAs would not only be well received, but enthusiastically welcomed. These circumstances include the apparent long-term downsizing of both federal and state governments, as well as greater acceptance that many school districts—urban, suburban, and rural alike—cannot and should not go it alone and therefore must reach out and seek collaboration with others. The window of opportunity available to ESAs to step forward is wide for those willing to accept the challenge.

To Order: *Expanding the Vision: New Roles for Educational Service Agencies in Rural School District Improvement*, by E. Robert Stephens, is available from the Distribution Center at AEL (ISBN 1-891677-00-4, 172 pages, 1998, $15). See the order form that accompanies this issue.

Schools Prepare to Submit E-Rate Applications

The 75-day window for submitting the first round of E-Rate applications for telecommunication discounts to schools should now be open. Visit the Schools and Libraries Corporation website (http://www.slcfund.org) for the latest information available.

The Snowe-Rockefeller-Exon-Kerrey Amendment to the Telecommunications Act of 1996 provided first-time-ever school discounts on telecommunications services. In May 1998, the Federal Communications Commission (FCC) issued regulations implementing the Act, and this past summer two corporations were formed to process applications for the discounts and to administer the funds: the Schools and Libraries Corporation is responsible for the application process, a website for posting applications, and public education, while the Universal Service Administrative Company handles billing, collection, and disbursement of funds. Ever since the FCC ruling in May, school personnel have waited expectantly for application forms and for the website to become operational.

The following locations can help schools answer last-minute questions and attend to final details as they complete the application process for Internet discounts.

Schools and Libraries Corporation Hotline
http://www.slcfund.org
888/203-8100

Education and Library Networks Coalition (EdLiNC) Hotline
http://www.eratehotline.org
800/733-6860 (available Monday-Friday, 10 a.m.-8 p.m., EST)

Federal Communications Commission (FCC)
http://www.fcc.gov/learnnet/
http://www.fcc.gov/formpage.html
888/CALL-FCC

National Exchange Carrier Association (NECA)
http://www.universalservice.org
http://www.neca.org
800/228-8597

U. S. Department of Education
http://www.ed.gov/Technology/erateforms/
(E-Rate forms available)
800/USA-LEARN

Kentucky Department of Education
http://www.kde.state.ky.us/
Don Coffman 502/564-4901
dcoffman@kde.state.ky.us

Tennessee Department of Education
http://www.state.tn.us/education
Jackie Shrago 615/532-1229
jshrago@ten-nash.ten.k12.tn.us

Virginia Department of Education
http://www.pen.k12.va.us/Anthology/VDOE/
Greg Weisiger 804/692-0335
gweisige@pen.k12.va.us

West Virginia Department of Education
http://wvde.state.wv.us/
Brenda Williams 304/558-7880
brendaw@access.k12.wv.us

RESEARCH NOTES

Districts, Educators Need More Support in Implementing Standards-Based Reform

Standards-based reform may be here to stay, but districts and teachers alike need additional support from their states if they are to properly implement the standards, finds a report by the Consortium for Policy Research in Education.

Examining standards-based reform efforts in nine states, researchers Diane Massell, Michael Kirst, and Margaret Hoppe found that the states have made slow but steady progress in implementing standards. Most states have crafted their standards quite broadly to allow districts discretion in adapting standards to their local circumstances.

Many districts have welcomed this flexibility and have elaborated on the state standards, the researchers note. Indeed, some have turned to community members, national standards groups, and other districts to round out the standards and generate matching curricula. However, most district educators want the state to provide more support than it has to help them implement the standards, the researchers explain.

"The most frequent complaint about state standards centered on their broad, general nature and the implicit or explicit assumption that district and school staff would have the capacity, resources, time, and expertise to flesh them out into a local curriculum," the researchers continue.

States also need to support central offices so that they, in turn, can support teachers as they change their classroom practices, the researchers add. "But some policymakers have ignored the role of district administrators and local boards, frequently conceiving of them as impediments to be bypassed rather than partners in the change effort," they write.

The researchers also discuss other issues related to standards-based reform, including content standards, assessment, and equity.

To Order: *Persistence and Change: Standards-Based Reform in Nine States* is available from the Consortium for Policy Research in Education, University of Pennsylvania, Graduate School of Education, 3440 Market St., Suite 560, Philadelphia, PA 19104-3325; 215/573-0700 (cite report no. 37, 72 pages, $10 prepaid).

To Learn More About Portfolio Assessment, Teachers Can Consult Annotated List of Articles

For teachers eager to learn about portfolio assessments but hard-pressed to find the time to sift through the flood of research about the topic, the Assessment Resource Library at Northwest Regional Educational Laboratory offers an annotated bibliography to keep them informed.

Portfolios are a form of alternative assessment in which teachers evaluate student performance based on actual samples of a student's work—from class worksheets to journal entries to art projects. Portfolios also allow for students' reflection on their progress and quality of work.

The bibliography references relevant articles and papers that library staff have collected and reviewed for inclusion. The alphabetical listing of articles (by primary author) includes complete ordering information and one-paragraph descriptions. Following the listing is an index, coded according to a set of descriptors developed to distinguish the diverse kinds of portfolios and the distinct emphases of the articles.

Using the descriptors, the bibliography's compilers classify and cross-reference articles according to primary focus, assessment purpose, subject area, grade level, type, and special features.

For example, a teacher looking for information on grading math in elementary grades using portfolios could reference en-

AEL Order Form

☞ Pull out ✍ Fill out ☒ Mail back

Use this form to order materials **from AEL,** as well as from the
ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS).
Please check (✓) your selections and complete the shipping information below.
Be sure to include payment for priced items.

Please add my friend or colleague to your mailing list: (please print legibly)

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

Shipping information: (please print legibly)

Name: ______________________________

Title: ______________________________

Organization: ______________________________

Address: ______________________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list, please add my name.

Postage Required

Daytime phone or e-mail:

____

(in case we have a question about your order)

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

(Some documents can be downloaded from our Web site: http://www.ael.org)

___ **ADHD—Building academic success (1995)**

This issue of *Policy Briefs* examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

___ **Children of la frontera: Binational efforts to serve Mexican migrant and immigrant students (1996)**

Who are the children of *la frontera*? What do we need to know to help these youngsters become the next group of U.S. college students, technicians, professionals, artists, and participating citizens? These are the questions more than 20 respected practitioners and scholars address in the chapters of this book. The authors present information about the historic and current context of relations between Mexico and the United States, schooling in Mexico, binational education and health programs, and effective practice in the classroom and in working with families. $18; 352 pp.

___ **Community service/service learning: An implementor's guide and resource manual (1996)**

This guide for educators and community/business representatives describes four service learning models, suggests activities for various school levels, highlights 27 Kentucky projects, and provides information about other resources and organizations. $14; 187 pp.

___ **Continuity in early childhood: A framework for home, school, and community linkages (1996)**

The *Framework* provides communities with a means to assess efforts to link and integrate early childhood and early elementary school services. $15; 139 pp.

___ **Dissolving the boundaries: Planning for curriculum integration in middle and secondary schools (1995)**

This publication helps secondary school faculties prepare for curriculum integration through a four-step process. Book (with 78-page facilitator's guide), $24.95; additional copies of book, $10; 83 pp.

___ **EdTalk: Checking up on early childhood care and education (1995)**

This easy-to-use checklist synthesizes information from early childhood research and development. Also included are highlights of key federal laws and steps to successful implementation. $5; 38 pp.

___ **EdTalk: Plugging in: Choosing and using educational technology (1996)**

This document helps educators choose technologies that support student learning. $5; 46 pp.

___ **EdTalk: What we know about reading teaching and learning (1996)**

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited-English-proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5, 70 pp.

___ **Facilitating systemic change in science and mathematics education: A toolkit for professional developers (1995)**

The purpose of this toolkit is to broaden and strengthen the expertise of individuals who help teachers and schools improve science and mathematics education. $45; 578 pp.

___ **Inclusion of special needs students: Lessons from experience (1996)**

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp.

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free**

______ **Inclusion (1996)**

______ **Respectful Learning Environments (1997)**

___ **Increasing student access to mathematics and science: A guide for classroom equity projects (1995)**

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. $5; 44 pp.

___ **Interdisciplinary units with alternative assessments: A teacher-developed compendium (1995)**

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of Virginia teachers received training, developed the units and assessments, and field tested them with their students. $12; 141 pp.

___ **Just beyond the classroom: Community adventures for interdisciplinary learning (1995)**

The outdoor adventures described here are organized around themes such as science, math, social studies, language arts, and others. To help teachers turn these adventures into meaningful interdisciplinary learning experiences, author Clifford Knapp includes background information, possible outcomes, activities, reflection questions, and performance assessments. He also explains how this type of interdisciplinary learning relates to historic and current education practice and reform. $12; 108 pp.

___ **Local schools of thought: A search for purpose in rural education (1996)**

The fictional story of a high school teacher's search for purpose in his rural classroom is the vehicle for this book, which addresses the question that ought to be at the heart of the American school reform debate: Why do we have schools? $12; 108 pp.

___ **1997 Native education directory: Organizations and resources**

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; Congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover; ISBN 1-880785-17-X.

___ **Nonlinear evolution of school-based decisionmaking in Kentucky (1996)**

This five-year study of how school councils evolved in four rural Kentucky school districts addresses three major areas: (1) shared decision making among represented role groups, (2) factors that facilitate or impede shared decision making, and (3) kinds of decisions made and their impact on schools. $5; 31 pp. (First 200 in print available at no charge.)

___ **Notes from the field: Five years of education reform in rural Kentucky, Vol. 5, No. 1 (1996)**

This publication is designed to provide ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. In this issue, findings of AEL's five-year study are summarized. $2, 8 pp.

___ **Planning schools to serve rural communities (1996)**

This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas (see story, page 2). Free, 8 pp.

___ **Preventing antisocial behavior in disabled and at-risk students (1996)**

This issue of *Policy Briefs* focuses especially on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2, 12 pp.

___ **Putting the pieces together: Comprehensive school-linked strategies for children and families (1996)**

This guidebook helps schools, families, and communities develop partnerships that help children and youth, families, and neighborhoods succeed. $8, 98 pp.

___ **Rural education directory: Organizations and resources (1996)**

This directory includes information about national organizations; federal government programs; state organizations; state department of education rural program coordinators; state data centers; and rural journals. $6, 65 pp.

BEST COPY AVAILABLE

___ **Scope it out: Standards-based microscope lessons for the middle school (1996)**

Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource contains lessons developed by classroom teachers and classroom activities reflecting the *National Science Education Standards*. $5, 62 pp.

___ **Teacher perceptions of and strategies for inclusion: A regional summary of focus group interview findings (1996)**

In 16 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. $15, 240 pp. State summaries of interview findings are also available at no additional cost (one state summary per purchase): *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings from* (KY, TN, VA, or WV).

___ **The public school superintendency: A comprehensive profile (1996)**

This historical overview of the superintendency illustrates that the role has been responsive to the social and economic conditions that shaped the development of U.S. public schools. The paper explores superintendents' perceptions of and preparation for their roles. $7, 60 pp. (First 200 in print available at no charge.)

___ **The Telecommunications Act of 1996: A Guide for Educators (1997)**

The Snowe-Rockefeller-Exon-Kerrey Amendment of the Telecommunications Act of 1996 provides telecommunications discounts to schools. This issue of *Policy Briefs* describes what schools should know to be ready to take advantage of the discounts. On-line version, http://www.ael.org/rel/policy/tlc97.htm. Print version, $2, 14 pp.

___ **Understanding and identifying children with ADHD: First steps to effective intervention (1995)**

This issue of *Policy Briefs* reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2, 8 pp.

___ **Voices from the field: Secondary school inclusion in the AEL Region (1996)**

State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. This audiotape presents interviews with principals and special educators at these schools. $10, 45 min.

AEL Information (free)

- ☐ AEL Products & Publications Catalog
- ☐ Family Connections I and II—take-home learning guides for young children
- ☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons
- ☐ QUEST—a process to help schools along the improvement journey
- ☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

Information Search Packages

These information packages contain a variety of current resources on block scheduling and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources.

___ **Block scheduling: (1996) $15, 142 pp.**
___ **Promoting safe schools (1996) $15; 178 pp.**
___ **Inclusion (1995) $10; 219 pp.**

Workshop Packages

___ **Systemic reform in mathematics and science: A workshop for schools and communities (1995)**

Information and hands-on activities in this workshop increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and role of partnerships in reform. The step-by-step guide and videotape highlight legislation and trends. $100 (without training), 132 pp. For assistance with training, contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

___ **Marginal learners: Identification, prevention, and intervention (1995)**

Each of the six content modules in this workshop package is designed as a 3- to 4-hour workshop that can be presented individually or as part of a series. The modules are sequenced, from identifying marginal learners to examining and adapting school and district policies and practices. Topics include the needs of marginal learners, proven practices, and planning improvement efforts. $50, 362 pp.

Low-Cost Books and FREE Resources on
Rural and Small Schools
from the
ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

● ___ ***Finding Their Own Place: Youth from Three Small Rural Communities Take Part in Instructive School-to-Work Experiences***

By Bruce A. Miller and Karen Hahn, 114 pp, 1997, soft cover, ISBN 1-880785-18-8, $12.00

The experiences of three rural and remote communities challenge common beliefs about the lack of opportunity for rural youth to participate in meaningful and instructive school-to-work experiences in their own small rural communities. But to create such opportunities, schools, community members, and policy makers had to work together. The author describes how the programs succeeded, including planning phases and creating policy support for innovative approaches. Book includes advice and resource information for readers who would like to try similar approaches in their own communities. (See story, p. 8)

___ ***Sustainable Small Schools: A Handbook for Rural Communities***

1997, 150 pp., soft cover, ISBN 1-880785-16-1, $15.00

This handbook helps community members and educators work together to improve small, rural schools. It is written in a readable style developed for a lay audience, but also includes the concerns that teachers and administrators face when working with community members. Chapters cover the historical and political factors affecting rural, small schools, curriculum considerations, model strategies, guidance on collaboration, and use of technology. An extensive resource chapter provides information about partnerships, coalition building, needs assessment, consolidation research, options such as Foxfire, four-day week, technology, and more, and tools for finding information.

___ ***Local Schools of Thought: A Search for Purpose in Rural Education***

By Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12.00

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort to improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

> *"The nature of the learning that is to proceed and the conditions necessary to that learning are the foci of* Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools."* — John I. Goodlad

___ ***1996 Rural Education Directory: Organizations and Resources***

Compiled by Patricia Cahape Hammer, 1996, 58 pp., soft cover, $12.00

Handier than ever with a detailed index, this new edition of our popular directory includes: national organizations, associations, networks, centers, and clearinghouses; federal government agencies and Congressional offices; rural journals; state organizations, National Rural Education Association affiliates, and other groups involved in rural education at the state level; and state department of education rural program coordinators and state data centers.

FREE ERIC DIGESTS

RURAL EDUCATION

- ___ ● *Parent and Community Involvement in Rural Schools.* S. Maynard & Aimee Howley (1997), EDO-RC-97-3
- ___ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7
- ___ *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* G. Huang (1995), EDO-RC-95-2
- ___ ● *The National Information Infrastructure: Keeping Rural Values and Purposes in Mind* by B. Barker & C. B. Howley (1997), EDO-RC-97-4
- ___ *Perspectives on Rural Child Care.* B. A. Beach (1997), EDO-RC-96-9
- ___ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3
- ___ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

SMALL SCHOOLS

- ___ *Affective and Social Benefits of Small-Scale Schooling.* K. Cotton (1996), EDO-RC-96-5
- ___ *Curriculum Adequacy and Quality in High Schools Enrolling Fewer than 400 Pupils (9-12).* C. Roellke (1996), EDO-RC-96-7
- ___ *Ongoing Dilemmas of School Size: A Short Story.* C. Howley (1996), EDO-RC- 96-6

● Recently published

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list. **Free**

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants.

tries that correspond to specific purpose (grading), subject (math), and/or grade level (elementary) categories.

Another classification distinguishes professional portfolios—those used for evaluating teachers, principals, or even schools and districts—from student-developed portfolios. The bibliography also directs readers to Internet bulletin boards and discussion groups dealing with portfolios.

To Order: *Bibliography of Assessment Alternatives: Portfolios* is available from Northwest Regional Educational Laboratory, Office of Marketing, 101 S.W. Main St., Suite 500, Portland, OR 97204; 503/275-9500 (cite order no. NL-997-AL, 113 pages, $12.95 prepaid).

Action Teams Help Baltimore Schools Expand Partnerships in All Directions

For two weeks, faculty at Benjamin Franklin Elementary School in Baltimore conducted a "media blitz" of newsletter mailings, flyers, and phone calls inviting parents to the school to talk with teachers and pick up their children's report. Their coordinated, collaborative effort to communicate with parents resulted in a well-attended and successful inaugural "Parents Night Out."

Those involved in the effort attribute the success to the school's action team, a committee of teachers, parents, community members, administrators, and students charged with developing and nurturing partnerships among the school, families, and the community. Action team members from Benjamin Franklin and five other elementary and middle schools in Baltimore recount their experiences with the action team approach in a publication by the Center for Research on the Education of Students Placed At Risk.

These Baltimore schools, participating in a program to identify and implement successful partnership practices, follow a research-based framework identifying six types of family and community involvement: parenting, communicating, volunteering, learning at home, decisionmaking, and collaborating with the community. As researcher Mavis G. Sanders describes, the creation of an action team at each of these schools ensured that the workload was shared by many committed individuals. Team members noted that the framework helped them organize and expand their partnership efforts.

For example, in meeting the challenge of community involvement, the team at Curtis Bay Elementary School was able to initiate not just one activity with local business SCM Chemicals, but several. The company sponsors a recycling program at the school and promotes school attendance by rewarding students and families with trips to Hershey Park. Employees also volunteer as tutors or mentors for some students.

To Order: *Building Effective School-Family-Community Partnerships in a Large Urban School District* is available from the Center for Research on the Education of Students Placed At Risk, Johns Hopkins and Howard Universities, 3003 N. Charles St., Suite 200, Baltimore, MD 21218; (410)516-8808 (cite report no. 13, 29 pages, $6.75 prepaid).

Investing in Teaching Profession Pays Off in Student Achievement, School Improvement

With a projected two million teachers entering the workforce in the next decade, now is the time for investing in high-quality teaching. That won't happen without drastic changes to current teacher education programs, teaching standards, recruitment, and professional development, assert researchers Linda Darling-Hammond and Ellalinda Rustique-Forrester.

(continued on page 8)

FOCUS ON INSTRUCTION

Featuring articles about teachers in the four AEL states—this issue: Virginia

Marshmuckers Wraps Several Curriculum Areas Into One Exciting Program

by Nancy Balow

Where would you start if you had to design an across-the-curriculum project for a group of 21 first through third grade students with whom you could spend only two hours a week?

Ruth Grillo of Accomack County Schools in Virginia asked herself that question last year. She wanted a project that would incorporate many subject areas and put students in touch with their environment. Her students, identified as potentially gifted, are scattered among the county's five elementary schools, each of which she visits one day a week.

Grillo wanted to wrap science, Spanish, math, creative writing, local history, and computer skills into one all-encompassing, exciting program. She came up with Marshmuckers. This original, interactive, bilingual, multimedia, virtual field trip and guide to the salt marshes of Virginia's Eastern Shore delivers everything but the taste of the saltwort, the smell of low tide, and wet feet.

While the Marshmuckers main product was the computerized field trip, the project spawned several extensions, including a book of poetry, a web site, and original graphics, which were used by the local Nature Conservancy office and also printed onto fabric, then sewn into a quilt. All this from a project that began in October 1996 and finished in January 1997.

A collaboration between the schools and community organizations, the Marshmuckers earned Ruth Grillo the 1997 Conservation Education Primary Teacher of the Year designation from the Virginia Association of Soil and Water Conservation Districts.

"It's easier to do than it looks," says Grillo. She broke the project into segments, one of which involved identifying and obtaining the necessary equipment. The schools already had basic Macintosh computers, so grants were written to add a scanner, a digital camera, and a laptop computer. The only software Grillo and students needed was HyperStudio, a multimedia presentation program.

Grillo found funding from the Virginia Environmental Endowment, the Eastern Shore Soil and Water Conservation District, and the Virginia Society for Technology in Education. Scientific and volunteer support came from The Nature Conservancy/Virginia Coast Reserve, the Virginia Institute of Marine Science, and the National Park Service, mainly through its Chincoteague and Assateague parks, but also via e-mail from rangers around the country and in Puerto Rico.

The classroom process began with research. Each student chose a topic—crustaceans, bats, insects, Indian history, whatever seemed most interesting—and developed a report using both print and electronic sources. When facts from all reports were gathered and entered into a computer database, the students actually went to a salt marsh for a tour guided by a Nature Conservancy volunteer.

"We took a boat to Parramore Island, a barrier island," Grillo explained. "When we got there, the students started asking each other questions, because each of them knew a lot about one particular aspect. It was great to see them teaching one another."

During the field trip, organisms and habitats were examined and digital photos were taken. These were edited and became part of the final product.

As work progressed, the students needed to get accurate translations of plant or animal names from English to Spanish. They sent e-mail requests to the National Park Service and got responses from around the country, which prompted them to say, "You mean scientists all over the country are doing work for us?" They began to understand that they were doing something important and relevant.

In addition to the initial research report, each student also produced a poem; a sound file of his or her own voice (to be used on the soundtrack); an original chart, graph or map; an original graphic for animation; and an edited digital photo of him/herself, with the background removed so the child could become part of the scene. The students literally put themselves into the production, with one hanging upside down in a tree with bats and another flying in a "V" of migrating geese. As one child said, "We liked putting ourselves into the computers, where we could do things like hide in a hermit crab shell."

The students mastered many computer skills to create the Marshmuckers, skills they're now sharing with their classmates. That's how she planned it, Ruth Grillo says. "Many of our teachers don't have the time or skills to do this themselves, so my kids have essentially become their multimedia teaching assistants."

Between the community organizations involved in the project and Grillo's ideas for promotion, the Marshmuckers has attracted a lot of attention. The Nature Conservancy used some of the student-created graphics in its brochures. The Marshmuckers quilt, made from fabric printed with project graphics, has toured public buildings in the county and traveled to education conferences. "The brochures and quilt present the project in a way that adults who aren't familiar with computer technology can understand," says Grillo.

Disk copies of the computer tour have gone to many other Virginia schools, and the company that makes HyperStudio has been using the Marshmuckers as a demo to sell the software. The students bask in the local and national publicity resulting from the project. "These kids live in an isolated area, and the recognition has helped them feel 'famous' and given them a belief that what they do in school is important," Grillo thinks. "And it tells people that school children do more than game playing on computers. This demonstrates pretty sophisticated skills."

How do you top a project like this one? According to Ruth Grillo, you build on it. "Last year we looked at the area's biological history. This year we're moving on to the social and cultural history—what the Eastern Shore was like during the Civil War, the history of lighthouses, things like that. We plan to add this to the Marshmuckers to complete an overall picture. I hope we can then find funding to produce compact disks and make our virtual tour available to everyone who wants it."

Grillo and her students would encourage other classes to take on a project like theirs. "I think the most effective technique was having each child become an expert on one thing at the beginning of the project," says the teacher. "Because they could choose something they were interested in, they were really motivated from the start. Then it was easy to keep them going. Every one of them would tell you the hard work was worth it. They're really proud of what they did.

A marsh poem

I used to hate the marsh because it was muddy.
But now I like marshmucking.
I used to be afraid of holding a sea urchin.
But now I am not afraid of its prickles.
I used to think that marshes weren't important.
But now I know that's where the animals' shelter is.
I used to not care about litter.
But now I pick it up.

Grillo's message to others: "Marshmuckers didn't happen just because these are gifted kids; you can do this in a regular classroom. Never underestimate what kids are capable of doing. Get them to stretch and you'll be amazed at their abilities."

For more information about Marshmuckers, contact Ruth Grillo at Accomack County Public Schools, 757/787-5754 or by e-mail: rgrillo@pen.k12.va.us.

Nancy Balow is a writer and graphic designer with Mother Wit in Charleston, WV.

(continued from page 1)

In a paper distributed by the Education Commission of the States, Darling-Hammond and Rustique-Forrester argue that improving teacher qualifications is crucial to improving schools and raising student achievement.

"The critical starting place to improve the caliber of teaching is creating a viable system of standards that promote high-quality preparation, ensure that every entering teacher is equipped to succeed with students, and guide ongoing professional development," Darling-Hammond writes. Recent efforts have established coherent guidelines on accreditation for schools of education, teacher licensing, and advanced certification based on nationally established standards and benchmarks.

Concurrently, teacher education programs should incorporate new knowledge about teaching and learning. The authors offer strategies for improving teacher preparation that include expanded clinical training, internships at professional development schools, and mentoring programs for beginning teachers.

Proactive and streamlined recruitment policies also help to ensure that teaching shortages are met by new teachers who are qualified. State incentives, such as scholarships or higher pay, can target individuals committed to teaching in hard-to-staff fields or locations, or teachers with dual licenses. Furthermore, the authors recommend creating professional development opportunities that support a "career continuum" to reward qualified teachers and keep them in the profession.

To Order: *Investing in Quality Teaching: State-Level Strategies* is available from the Education Commission of the States, 707 17th St., Suite 2700, Denver, CO 80202-3427; (303)299-3600 (cite order no. TE-97-1, 4 pages, $4 prepaid, postage and handling included).

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348

Address Correction Requested

Telephone
304/347-0400
800/624-9120
304/347-0487 (fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell, Executive Director
Carolyn Luzader, Editor

Editorial Board
Diana Bowman
Juliet Gregg
Pat Hammer
Jane Hange
Marian Keyes
Carla McClure
Pat Penn
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit Org.
U.S. Postage Paid
Permit No. 743
Pensacola, FL
32501

[illegible]
ERIC
PO BOX 1348
CHARLESTON WV 25325

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Technical Assistance Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 17
No. 1
•
Spring
1998

School-Based Programs to Promote Safety and Civility*

by Soleil Gregg, AEL Staff

In a decent society that wishes to survive as a self-sustaining democracy, there must be a high degree of civility, because that mirrors the respect that we have, not only for our constitutional order, but for our fellow citizens.[1]

The democratic process depends on the practice of civility to negotiate differences among individuals and groups. However, disputes and insults increasingly trigger violent responses, especially among the young. Adolescent homicide rates have "more than doubled since 1985"; 20 percent of suburban students in one survey endorse "shooting someone 'who has stolen something from you,' while eight percent believe it is acceptable to shoot a person 'who has done something to offend or insult you'" (p. 14).[2] Homicide is now the leading cause of death for African American and Hispanic young adults and the second leading cause of death for all 15- to 24-year-olds.[3] The violence that plagues society at large is spilling over into schools. Approximately 3 million crimes occur annually in the nation's 85,000 public schools.[4] Although most schools are safe, parents, educators, and students increasingly view school safety and order as major concerns. They complain that students lack civility and respect for teachers and classmates.[5,6]

Although the causes of violence are complex and varied, our youth clearly need to learn a basic prerequisite for civilized behavior—how to settle differences nonviolently. Their survival—and the survival of a democracy such as ours—depends on it.

In response, schools across the country are beginning to implement curricula and programs[7] to teach students how to behave respectfully and responsibly as members of a democratic society, who "express their concerns peacefully and seek resolutions to problems that take into account common interests and recognize the human dignity of all involved" (p. 1).[8] Many of these programs appear promising—based on program design, anecdotes, or pilot or preliminary

---

*This article is excerpted from AEL's new **Policy Briefs** of the same title. The publication contains descriptions of some effective models and projects and contact information for related organizations.

In this issue:

RESEARCH NOTES
Volunteer Tutors' Potential to Help Improve Children's Reading Warrants Evaluation, p. 4
How Title I Schoolwide Programs Precipitate Changes in Schools' Strategies, Philosophy, p. 4
Thoughtful Implementation of Standards Can Focus School Improvement, p. 5
Compendium of State and National Standards Helps Schools Fine Tune Their Own, p. 6
Foster Students' Self-Motivation Before Relying on Reward Incentives, p. 6
Education Spending Requires Long-Term, Results-Based Investment, p. 7
Children Benefit from Good Parent-Teacher Conferences, p. 7

NOTEWORTHY
Beacons of Excellence Project to Identify Outstanding Secondary Schools, p. 8
Department of Education's Web Site Offers Much, p. 8
New Clearinghouse for Educational Facilities, p. 8

FOCUS ON INSTRUCTION
An Innovative Title I Project Gets Kentucky Parents Involved, p. 9

INSIDE AEL
Register Now for Summer Professional Development from AEL, p. 11
AEL Web Site Gets New Look, p. 12

AEL
30 YEARS OF SERVICE
to educators in
Kentucky,
Tennessee,
Virginia, and
West Virginia

RC UX 117

2,17

studies—but a lack of scientific evidence proving their effectiveness has left school personnel wondering what programs really work.[illegible]

To better inform schools and communities, the U.S. Departments of Justice and Education, the National Institute of Mental Health (NIMH), the General Accounting Office (GAO), and the Centers for Disease Control and Prevention (CDC) have funded studies of school-based interventions over the past few years. Data from these and other rigorous studies are providing evidence that training students to manage their emotions, to respect others' viewpoints, and to settle their differences peacefully can help reduce school problems of violence and disrespect.[illegible]

School-based programs to help students manage interpersonal conflict range from simple classroom curricula to comprehensive, schoolwide programs. Most teach a process that helps students "change from being adversaries in a face-to-face confrontation to being partners in a side-by-side search for a fair agreement that is advantageous to both" (p. 15).[illegible] Effective programs teach students how to separate people from the problem, focus on interests instead of positions, develop win-win options, and make decisions based on objective criteria. They also present a process for problem solving such as negotiation, mediation, or consensus building. Finally, they help individuals develop the attitudes, values, and abilities—cognitive, social, and emotional—they need to negotiate disputes.[illegible]

Effective programs teach students how to separate people from the problem, focus on interests instead of positions, develop win-win options, and make decisions based on objective criteria.

Schools have traditionally expected discipline systems to correct behavior problems. However, punishment may exacerbate rather than eliminate violence and does not teach students to be prosocial.[illegible] Johnson and Johnson believe that teaching children the three Cs—cooperation, civic values, and conflict resolution—can provide the structure and skills for creating safe, supportive school environments.[illegible] Hill Walker of the Social Learning Center, University of Oregon, also believes that schools should be proactive and "teach alternative, replacement behavior patterns that are adaptive and functional" (p. 35).[illegible] Drawing on his years of research, he says that "ultimately, students need to collectively care about and bond with their school and learn to respect the rights and well-being of other students and staff" (p. 8).[illegible]

Tips for Developing and Implementing Schoolwide Programs

For any program to succeed, school staff need to believe that conflict can be resolved peacefully and to model this belief in classrooms and schools. Adopting a program may require school leaders and staff to shift from traditional behavior management systems, in which discipline is an externally imposed set of rules and consequences, to helping students develop the values, attitudes, and inner discipline they need to regulate and control their own behavior.[illegible]

Key Characteristics of Effective Programs

A study by the General Accounting Office identifies seven key characteristics of effective violence prevention programs:

(1) a comprehensive approach that recognizes the complexity of violence;

(2) an early start and long-term commitment (a K-12 approach);

(3) strong school leadership and clear, consistent discipline policies and procedures;

(4) training for administrators, teachers, and staff in behavior management, mediation, and violence prevention strategies;

(5) parent training and involvement;

(6) links to law enforcement and social service agencies and the community; and

(7) culturally sensitive and developmentally appropriate materials and activities for students.[illegible]

Steps for Implementation

The following implementation steps can also increase the chance of program success.[8]

- Assemble a planning team composed of administrators, teachers, parents, and community members. Many schools already have school-based decision-making teams that can fulfill this role.
- Determine the types of conflict in the school and ways conflict has been addressed. Support for the program will depend, in part, on how the program addresses perceived needs, builds on school strengths, meshes with existing school improvement plans, and promotes the school's educational mission.
- Develop goals and desired outcomes based on assessment of needs.
- Choose a program or curriculum that best matches school needs and goals.
- Select a staff development trainer, preferably one who helps the school build capacity to deliver its own continuing and future staff development.
- Seek administrative, faculty, and parental commitment and support. Building and district administrators can provide leadership and support by sharing the program's benefits and successes with local boards of education, faculties, students, parents, and civic groups; participating in training and teaching opportunities; and modeling the principles of resolving conflict. They can also involve faculties in planning, ensure adequate staff development, inform parents about the program, and even provide parent training in conflict resolution techniques.
- Evaluate results. Evaluation measures progress toward program goals and provides data for continuous improvement. Evidence of success also helps sustain enthusiasm for the program.

Because of the complexity and variation of violent behavior, policy makers, educators, and parents need to understand that no one school program can possibly eliminate it.[illegible] However, "aspects of emotional fluency and understanding can be successfully taught in the school environment by classroom teachers to both regular and special needs…children" (p. 13).[illegible] School-based programs can help students understand others' points of view, develop tolerance and self-control, and learn to settle their differences peacefully—in other words, help them learn civil, respectful behavior. Therefore, such programs not only play a useful role in more comprehensive efforts to reduce violence in schools and society, but they can also prepare students to be good citizens by fostering the attitudes and skills they will need as adults to participate in and nurture our democratic nation.

References

1. Kennedy, A. (1997, Spring). 1996 speech at the Emory University School of Law by U.S. Supreme Court Justice Anthony Kennedy. Emory Magazine, 73(1), 13.
2. Charles Stewart Mott Foundation. (1994). A fine line: Losing American youth to violence (a special section reprinted from the 1994 Annual Report of the Charles Stewart Mott Foundation). Flint, MI: Author.
3. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. (1996). Violence: Youth violence in the United States. Available: http://www.cdc.gov/ncipc/dvp/yvfacts.htm
4. Sautter, C. (1995, January). Standing up to school violence. Kappan Special Report. Phi Delta Kappan, 76(5), K1-K12.
5. Johnson, J., & Farkas, S. (1997). Getting by: What American teenagers really think about their schools. New York: Public Agenda.
6. Schools test new ways to resolve conflict. (1995, December). ASCD Update, 37(10), 1-8.
7. U.S. Department of Education. (1997). Safe, disciplined, and drug-free schools: A background paper for the Goals 2000: Educate America satellite town meeting, July 15, 1997. Washington, DC: Author.
8. Crawford, D., & Bodine, R. (1996). Conflict resolution education: A guide to implementing programs in schools, youth-serving organizations, and community and juvenile justice settings. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, and U.S. Department of Education, Office of Elementary and Secondary Education.

continued on page [illegible]

BEST COPY AVAILABLE

RESEARCH NOTES

Volunteer Tutors' Potential to Help Improve Children's Reading Warrants Evaluation

With nearly 40 percent of American children reading below average for their age level, a national commitment to strengthening the reading skills of young children has turned the spotlight onto volunteer tutoring programs. Yet, little evidence has been collected to indicate what impact, if any, volunteer tutors can have on children's reading ability.

"Volunteer tutors may be able to contribute to children's reading success, but a great deal of research, development of replicable models, and evaluation of alternative models is needed if the potential of volunteer tutoring is to be realized," asserts Barbara A. Wasik in a publication from the Center for Research on the Education of Students Placed At Risk. Toward this end, Wasik reviews 10 widely used adult volunteer tutoring programs in reading.

While research and practice have established the effectiveness of one-on-one tutoring in general, there have been few evaluations to determine if the hundreds of locally created tutoring programs aimed at improving children's reading development are working.

Some of these programs were created as affordable alternatives to highly successful reading programs such as Reading Recovery and Success for All. The possibility of disseminating these less expensive models only further emphasizes the need to evaluate them, Wasik explains.

Wasik provides a description of each program, including processes and materials, dissemination information, and whatever evaluation data are available. An appendix table offers details on specific program elements. Book Buddies, Read*Write*Now, and two AmeriCorps-related programs are among those reviewed.

Despite the lack of direct evaluation feedback, Wasik discusses some elements common to these popular programs, suggesting their possible beneficial impact and proposing them for further investigations. For example, she notes the apparent importance of having a designated coordinator and knowledgeable trainer of tutors, consistency in training and in frequency of tutoring sessions, and coordination between tutoring approaches and classroom instruction.

To Order: *Volunteer Tutoring Programs: A Review of Research on Achievement Outcomes* is available from the Center for Research on the Education of Students Placed At Risk, The Johns Hopkins and Howard Universities, 3003 N. Charles St., Suite 200, Baltimore, MD 21218; 410/516-8800 (cite report no. 14; 38 pages, $7.25 prepaid).

New Title I Schoolwide Programs Precipitate Changes in Schools' Strategies, Philosophy

Changes to Title I, the legislation aimed at improving education for children in poverty, have shifted its focus away from compensatory, remedial instruction in the "basics" toward schoolwide improvements that upgrade the educational program for all students.

A resource guide from WestEd examines the new Title I schoolwide program, highlighting three key features—whole school reform strategies in place of "add-on" services, flexibility in how schools can spend Title I funds, and the option for schools to combine them with other federal programs.

"Schools serving our most impoverished children don't need better supplemental instruction, they need comprehensive reform," write the authors. "Disadvantaged learners will not develop higher-order skills and more challenging standards unless the whole school is organized to make this happen for all kids."

WestEd's resource guide explains how and why whole-school reform works better to educate Title I students. It also offers school personnel suggestions and resources for reorganizing their school and developing a schoolwide program. The guide is divided into six sections:

- Rationale and purpose of Title I schoolwide programs, detailing the research supporting the approach;
- Requirements and components of the Title I legislation to help schools implement the new schoolwide option;
- Planning framework, including tools and activities to help schools develop a schoolwide program tailored to local needs;
- Challenges and ideas to consider, focusing on fundamental design issues such as restructuring time;
- Profiles of schools that have implemented innovative programs; and
- Information and resource listings to support a school's planning efforts.

The resource guide also contains a video that profiles three successful schools.

To Order: *Schoolwide Reform: A New Outlook* is available from WestEd, 730 Harrison St., San Francisco, CA 94107; (415)565-3044 (use order no. TAC-98-01; 250 pages, $30 prepaid).

Thoughtful Implementation of Standards Can Ensure School Improvement

Mirroring a general shift in the education reform movement from inputs to results beginning in the 1980s, standards—what students should know and be able to do—have emerged as a promising way to improve student achievement outcomes.

However, the drawbacks of misguided efforts have become apparent, making it essential for educators and policy makers to carefully examine the potential benefits and challenges of standards-based education, explain Ivan L. Burnam and J. Timothy Waters of the Mid-continent Regional Educational Laboratory (McREL). They author an introduction to the September issue of the **Bulletin**, the journal of the National Association of Secondary School Principals (NASSP), which devotes its articles to an exploration of standards-based education from several perspectives.

Examining the results of international tests such as the Third International Mathematics and Science Study (TIMSS), John T. Sutton and Alice B. Krueger, also from McREL, suggest that the comparatively "dismal" performance of U.S. students is the result of a lack of focus in our education standards. "There may be too many different concepts of educational standards, since they have been framed at the national, state, and local levels," they write.

The answer, they argue, is not to come up with new national standards in math and science, but rather to provide assistance and resources at the local level so that educators can fully implement those already on the books, which "have and will continue to serve a useful purpose in providing an articulated and informed view of how math and science education need to change."

An article by McREL's Robert Marzano and John Kendall updates the status of national and state efforts to set standards in content areas. Colorado Governor Roy Romer champions the promise of standards-based education to ensure that all students succeed. And still other articles focus on teachers' challenges, efforts, and professional development needs in implementing standards in the classroom.

To Order: *Standards-Based Education: Helping Students To Succeed* is available from the National Association of Secondary School Principals, 1904 Association Dr., Reston, VA 20191; (703)860-0200 (use order no. 1100798; 123 pages, $12 for members, $15 for non-members, prepaid).

Compendium of State and National Standards Helps Schools Fine-Tune Their Own

In its second edition resource compendium of standards and benchmarks for K-12 education, the Mid-continent Regional Educational Laboratory (McREL) provides an up-to-date synthesis of the innumerable national and state directives that can inform efforts at the local and school level.

The binder can be used "as a resource or for schools or districts generating their own standards or, more commonly, to revise and augment the standards and benchmarks provided by their state department of education," explain researchers John Kendall and Robert Marzano.

The new volume includes 255 standards and nearly 4,000 accompanying benchmarks across various disciplines. The information was culled from more than 100 national and state documents regarding what elementary and secondary students should know and be able to do.

The standards and benchmarks refer to each discipline identified in the national goals, as well as health, physical education, behavioral studies, technology, and life skills. Each subject-area section begins with a summary of defined standards, followed by bulleted lists of benchmarks—the tasks and activities that demonstrate mastery of the standard. Tasks are grouped into four levels, each spanning three or four grades.

For example, one mathematics standard requires that a student "uses a variety of strategies in the problem-solving process." To demonstrate this, K-2 students can draw pictures to represent problems (a procedural benchmark) or explain to others how he or she solved a problem (a contextual benchmark).

The guide also includes discussions of conceptual and historical issues, including the relationship between performance assessments and standards-based education.

To Order: *Content Knowledge: A Compendium of Standards and Benchmarks for K-12, Second Edition* is available from the Association for Supervision and Curriculum Development, 1250 North Pitt St., Alexandria, VA 22314; (703)549-9110 (cite order no. 197254; 651 pages, $39.95 for ASCD members, $47.95 for nonmembers, prepaid).

Foster Students' Self-Motivation Before Relying on Reward Incentives

In a publication for teachers and school improvement teams, researchers Judith Meece and Wendy McColskey look at student motivation—what it is, what factors affect it, why it's important for student achievement, and how teachers and schools can assess and cultivate it.

Meece and McColskey cite research indicating that intrinsic motivators—e.g., students' desire for "mastery of tasks"—lead to better learning than do extrinsic rewards such as grades and expectations of quizzes.

That is not to say there aren't appropriate situations in which to use extrinsic incentives, the researchers are quick to point out, "but they are clearly only a piece of the motivation puzzle, given the long-term goal of students becoming responsible for their own learning.... The most effective motivation program is one that encourages intrinsic reasons for engaging in learning tasks whenever possible and uses incentives in an individual and strategic manner."

In the guide, published by the SouthEastern Regional Vision for Education (SERVE), the researchers also examine what classroom factors relate to students' interest and effort and, consequently, what strategies teachers can use to increase their engagement in learning. Furthermore, they explore the responsibilities of school leaders to consider the impact of schoolwide policies on student motivation.

AEL Order Form

☞ Pull out ✍ Fill out ☒ Mail back

Use this form to order materials **from AEL,** as well as from the
ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS).
Please check (✔) your selections and complete the shipping information below.
Be sure to include payment for priced items.

Please add my friend or colleague to your mailing list: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

Shipping information: (please print legibly)

Name: ____________________

Title: ____________________

Organization: ____________________

Address: ____________________

____

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Daytime phone or e-mail:

____

(in case we have a question about your order)

Postage
Required

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

275

Resources Available from AEL

Some documents can be downloaded from our Web site: http://www.ael.org

___ **ADHD—Building academic success (1995)**

This issue of *Policy Briefs* examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

___ **A guide to gender fair education in science and mathematics (1996)**

This publication presents information gathered from the research and programs developed by hundreds of teachers and researchers in the field of educational equity. The activities highlighted are examples of programs supported by the U.S. Department of Education and National Science Foundation, as well as states, counties, and cities. It includes an annotated bibliography of programs for girls in grades K-12. $15; 40 pp.

___ **Children of *la frontera*: Binational efforts to serve Mexican migrant and immigrant students (1[illegible])**

Who are the children of *la frontera*? What do we need to know to help these youngsters become the next group of U.S. college students, technicians, professionals, artists, and participating citizens? These are the questions more than 20 respected practitioners and scholars address in the chapters of this book. The authors present information about the historic and current context of relations between Mexico and the United States, schooling in Mexico, binational education and health programs, and effective practice in the classroom and in working with families. $18; 352 pp.

___ **Community service/service learning: An implementor's guide and resource manual (1996)**

This guide for educators and community/business representatives describes four service learning models, suggests activities for various school levels, highlights 27 Kentucky projects, and provides information about other resources and organizations. $14; 137 pp.

___ **Continuity in early childhood: A framework for home, school, and community linkages (1996)**

The *Framework* provides communities with a means to assess efforts to link and integrate early childhood and early elementary school services. $15; 134 pp.

___ **Dissolving the boundaries: Planning for curriculum integration in middle and secondary schools (1995)**

This publication helps secondary school faculties prepare for curriculum integration through a four-step process. Book (with 78-page facilitator's guide), $24.95; additional copies of book only, $10; 83 pp.

___ **EdTalk: Checking up on early childhood care and education (1995)**

This easy-to-use checklist synthesizes information from early childhood research and development. Also included are highlights of key federal laws and steps to successful implementation. $5; 38 pp.

___ **EdTalk: Plugging in: Choosing and using educational technology (1995)**

This document helps educators choose technologies that support student learning. $5; 46 pp.

___ **EdTalk: What we know about reading teaching and learning (1996)**

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited English proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5; 70 pp.

___ **Expanding the vision: New roles for educational service agencies (1996)**

Educational service agencies can serve an essential role today to rural districts as they face the challenges of systemic school reform, according to E. Robert Stephens in this book from AEL's Rural Center. Stephens details the forces that are shaping current expectations of rural public education and lays the groundwork for considering future possibilities for agency programs and services. $15; 172 pp.

___ **Facilitating systemic change in science and mathematics education: A toolkit for professional developers (1995)**

The purpose of this toolkit is to broaden and strengthen the expertise of individuals who help teachers and schools improve science and mathematics education. $45; 578 pp.

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free**

______ **Inclusion (1996)**

______ **Respectful Learning Environments (1997)**

___ **Inclusion of special needs students: Lessons from experience (1996)**

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp.

___ **Increasing student access to mathematics and science: A guide for classroom equity projects (1995)**

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. $5; 44 pp.

___ **Interdisciplinary units with alternative assessments: A teacher-developed compendium (1995)**

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of Virginia teachers received training, developed the units and assessments, and field-tested them with their students. $12; 141 pp.

___ **Just beyond the classroom: Community adventures for interdisciplinary learning (1995)**

The outdoor adventures described here are organized around themes such as science, math, social studies, language arts, and others. To help teachers turn these adventures into meaningful interdisciplinary learning experiences, author Clifford Knapp includes background information, possible outcomes, activities, reflection questions, and performance assessments. He also explains how this type of interdisciplinary learning relates to historic and current education practice and reform. $12; 108 pp.

___ **Local schools of thought: A search for purpose in rural education (1996)**

The fictional story of a high school teacher's search for purpose in his rural classroom is the vehicle for this book, which addresses the question that ought to be at the heart of the American school reform debate: Why do we have schools? $12; 108 pp.

___ **1997 Native education directory: Organizations and resources**

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; Congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover; ISBN 1-880785-17-X.

___ **Nonlinear evolution of school-based decision making in Kentucky (1996)**
This five-year study of how school councils evolved in four rural Kentucky school districts addresses three major areas: (1) shared decision making among represented role groups, (2) factors that facilitate or impede shared decision making, and (3) kinds of decisions made and their impact on schools. $5; 31 pp. (First 200 in print available at no charge.)

___ **Notes from the field: Five years of education reform in rural Kentucky, Vol. 5, No. 1 (1996)**
This publication is designed to provide ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. In this issue, findings of AEL's five-year study are summarized. $2; 8 pp.

___ **Planning schools to serve rural communities (1996)**
This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas (see story, page 2). Free, 8 pp.

___ **Preventing antisocial behavior in disabled and at-risk students (1996)**
This issue of *Policy Briefs* focuses especially on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2; 12 pp.

___ **Putting the pieces together: Comprehensive school-linked strategies for children and families (1996)**
This guidebook helps schools, families, and communities develop partnerships that help children and youth, families, and neighborhoods succeed. $8; 98 pp.

___ **Rural education directory: Organizations and resources (1996)**
This directory includes information about national organizations, federal government programs, state organizations, state department of education rural program coordinators, state data centers, and rural journals. $6; 65 pp.

___ **School-based programs to promote safety and civility (1996)**
See cover story for description. $2; 14 pp.

___ **Schools for disruptive students: A questionable alternative? (1996)**
Recent safe schools legislation and commitments to provide orderly, safe learning environments have prompted states to create alternative schools for disruptive students. This issue of *Policy Briefs* reviews the research on alternative schools and suggests indicators policy makers can monitor to judge the effectiveness of alternative school legislation. $2; 8 pp.

___ **Scope it out: Standards-based microscope lessons for the middle school (1996)**
Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource contains lessons developed by classroom teachers and classroom activities reflecting the *National Science Education Standards*. $5; 62 pp.

___ **Teacher perceptions of and strategies for inclusion: A regional summary of focus group interview findings (1996)**
In 18 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. $15; 240 pp. State summaries of interview findings are also available at no additional cost (one state summary per purchase): *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings* from (KY, TN, VA, or WV).

___ **The public school superintendency: A comprehensive profile (1996)**
This historical overview of the superintendency illustrates that the role has been responsive to the social and economic conditions that shaped the development of U.S. public schools. The paper explores superintendents' perceptions of and preparation for their roles. $7; 40 pp. (First 200 in print available at no charge.)

___ **The Telecommunications Act of 1996: A guide for educators (1997)**
The Snowe-Rockefeller-Exon-Kerrey Amendment of the Telecommunications Act of 1996 provides telecommunications discounts to schools. This issue of *Policy Briefs* describes what schools should know to be ready to take advantage of the discounts. On-line version: http://www.ael.org/rel/policy/tcu97.htm. Print version: $2; 14 pp.

___ **Understanding and identifying children with ADHD: First steps to effective intervention (1995)**
This issue of *Policy Briefs* reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2; 8 pp.

___ **Voices from the field: Secondary school inclusion in the AEL Region (1996)**
State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. This audiotape presents interviews with principals and special educators at these schools. $10; 45 min.

AEL Information (free)

☐ AEL Products & Publications Catalog

☐ Family Connections I and II—take-home learning guides for young children

☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons

☐ QUEST—a process to help schools along the improvement journey

☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

Information Search Packages

These information packages contain a variety of current resources and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals, ERIC Digests, an ERIC search, and information about AEL-produced materials and other resources.

___ **Block scheduling (1996) $15; 142 pp.**

___ **Inclusion (1995) $16; 219 pp.**

___ **Promoting safe schools (1996) $15; 179 pp.**

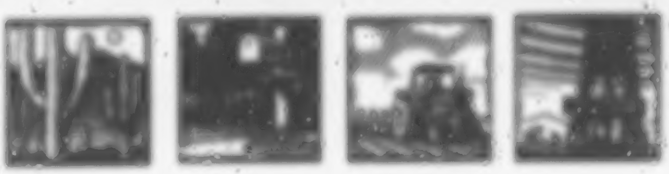
___ **Technology in Education (1996) $15; 136 pp.**

Workshop Packages

___ **Systemic reform in mathematics and science: A workshop for schools and communities (1995)**
Information and hands-on activities in this workshop increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and the role of partnerships in reform. The step-by-step guide and videotape highlight legislation and trends. $100 (without training); 132 pp. For assistance with training, contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

___ **Marginal learners: Identification, prevention, and intervention (1995)**
Each of the six content modules in this workshop package is designed as a 3- to 4-hour workshop that can be presented individually or as part of a series. The modules are sequenced, from identifying marginal learners to examining and adapting school and district policies and practices. Topics include the needs of marginal learners, proven practices, and planning improvement efforts. $50; 362 pp.

BEST COPY AVAILABLE



Low-Cost Books and FREE Resources on
Rural and Small Schools

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

• ___ ***Finding Their Own Place: Youth from Three Small Rural Communities Take Part in Instructive School-to-Work Experiences***

By Bruce A. Miller and Karen Hahn, 1997, 114 pp., soft cover, ISBN 1-880785-18-8, $12

The experiences of three rural and remote communities challenge common beliefs about the lack of opportunity for rural youth to participate in meaningful and instructive school-to-work experiences in their own small, rural communities. But to create such opportunities, schools, community members, and policy makers had to work together. The author describes how the programs succeeded, including planning phases and creating policy support for innovative approaches. Book includes advice and resource information for readers who would like to try similar approaches in their own communities.

___ ***Sustainable Small Schools: A Handbook for Rural Communities***

1997, 150 pp., soft cover, ISBN 1-880785-16-1, $15

This handbook helps community members and educators work together to improve small, rural schools. It is written in a readable style developed for a lay audience, but also includes the concerns that teachers and administrators face when working with community members. Chapters cover the historical and political factors affecting rural, small schools; curriculum considerations; model strategies; guidance on collaboration; and use of technology. An extensive resource chapter provides information about partnerships, coalition building, needs assessment, consolidation research, options such as fivaday, four-day week, technology, and more, and tools for finding information.

___ ***Local Schools of Thought: A Search for Purpose in Rural Education***

By Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort to improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

> "*The nature of the learning that is to proceed and the conditions necessary to that learning are the foci of* Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools.*" — John I. Goodlad

___ ***1998 Rural Education Directory: Organizations and Resources***

Compiled by Patricia Cahape Hammer, 1998, 58 pp., soft cover, $12

Handier than ever with a detailed index, this edition of our popular directory includes national organizations, associations, networks, centers, and clearinghouses; federal government agencies and Congressional offices; rural journals; state organizations, National Rural Education Association affiliates, and other groups involved in rural education at the state level; and state department of education rural program coordinators and state data centers.

FREE ERIC DIGESTS

RURAL EDUCATION

___ • *Parent and Community Involvement in Rural Schools.* S. Maynard & Aimee Howley (1997), EDO-RC-97-3

___ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

___ *National Data for Studying Rural Education: Elementary and Secondary Education Applications.* C. Huang (1995), EDO-RC-95-2

___ • *The National Information Infrastructure: Keeping Rural Values and Purposes in Mind.* B. Barker & C. B. Howley (1997), EDO-RC-97-4

___ *Perspectives on Rural Child Care.* B. A. Beach (1997), EDO-RC-96-9

___ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

___ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

SMALL SCHOOLS

___ *Affective and Social Benefits of Small-Scale Schooling.* K. Cotton (1996), EDO-RC-96-5

___ *Curriculum Adequacy and Quality in High Schools Enrolling Fewer than 400 Pupils (9-12).* C. Roellke (1996), EDO-RC-96-7

___ *Ongoing Dilemmas of School Size: A Short Story.* C. Howley (1996), EDO-RC-96-6

• Recently published

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list. **Free**
The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to rural and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants.

"Efforts to enhance students' intrinsic motivation in the classroom can be subverted by schoolwide policies and practices that overemphasize raising test scores, offer too few opportunities for teacher collaboration, require strict adherence to textbook coverage, or limit resources for staff development or curriculum refinement," they conclude.

To Order: *Improving Student Motivation: A Guide for Teachers and School Improvement Teams* is available from the SouthEastern Regional Vision for Education, 345 S. Magnolia Dr., Suite D-23, Tallahassee, FL 32301, (800)352-6001 (cite order no. RDISM, 98 pages, $12 plus $2.50 shipping and handling).

Education Spending Requires Long-Term, Results-Based Investment

With funding for public education likely to remain tight in the near future, policy makers must take a long-term investment approach to improving student achievement. Such an approach requires knowing what areas of concentrated spending yield the most significant results. A publication from the Education Commission of the States (ECS) helps policy makers determine ways to acquire this knowledge.

In recent years, states have increasingly concentrated efforts to improve student achievement in three areas: early childhood education, teacher quality, and stronger connections between the K-12 and postsecondary systems. ECS authors examine the approaches taken by many states and describe the "high level of creativity, leadership and commitment with which states are moving ahead in these areas."

However, despite substantial commitments of staff talents and resource spending, for the most part there has been little evaluation of the payoff of these efforts. Without such evaluation, policy makers cannot make the shift from "a view of education spending as simply budgeting an ongoing stream of revenues to one that is based on investing in programs that provide the greatest return for the dollar." The reality of declining revenues and competition for future financial resources make this shift a necessity.

The authors describe methods policy makers can use to make the shift to a results-based budgeting process that uses existing resources more efficiently. These suggestions include insisting on well-documented evidence of program results and requiring program evaluations so that this evidence becomes available. They also recommend considering whether an effective program is still worthwhile if funding shortages restrict its full im-

Children Benefit from Good Parent-Teacher Conferences

Many parents go to parent-teacher conferences thinking the teacher is in charge and that they are significantly less important. But James Comer, a child psychiatrist and one of the nation's leading advocates of parental involvement in schools, wants parents to be more prepared and more informed. According to Comer, if the primary purpose of parent-teacher conferences is to gain information about a child as a learner, it is only logical that teachers need parent input as much as parents need input from teachers. Parents can improve the quality and effectiveness of parent-teacher conferences in several ways: (1) Ask for two conferences a year, one before the end of October and one in March; (2) Expect the teacher to show you examples of current work, including the books being used; (3) Ask the teacher about classroom rules, how they are enforced, and how your child is doing socially; (4) Find out specifically what the teacher's expectations are and what kind of help the teacher wants from you; (5) After the conference, discuss it with your child. In addition to these tips, parents are advised not to wait until a conference if they have a concern or a question, and no matter what the problem, always go to the teacher first.

Source: Ed.Net Briefs,* Barbara F. Meltz, *The Boston Globe*, "Do your homework before conferences," as published in *Seattle Post-Intelligencer*, October 18, 1997.

---

*Ed.Net Briefs is a free weekly online education newsletter sent to subscribers via e-mail each Monday, September-June. Ed.Net Briefs is a compilation of summaries of education stories with source citations. **For a free subscription**, send an e-mail message to [illegible]; leave the subject area of your e-mail message blank, and type "subscribe" in the message (without quotation marks).

BEST COPY AVAILABLE

plementation. Lastly, they insist on legislative follow-through—making sure policies are clear, consistent, and carried out.

To Order: *Investing in Student Achievement* is available from the Education Commission of the States, 707 17th St., Suite 2700, Denver, CO 80202-3427; (303)299-3692 (use order no. SI-97-9, 28 pages, $10 plus $3 postage and handling, prepaid; discounts available for bulk orders).

NOTEWORTHY

Beacons of Excellence Project to Identify Outstanding Secondary Schools

In September 1998, a call for nominations to identify schools that achieve exemplary outcomes for all students, including students with disabilities, will be issued by the Beacons of Excellence Project. Conducted by the Institute on Community Integration at the University of Minnesota, in collaboration with The Council for Exceptional Children,* the project is funded by the U.S. Department of Education's Office of Special Education Programs.

The three-year study will identify secondary schools that obtain exemplary results for all students—including students with disabilities—and study how secondary school curriculum, policies, administration, and instruction contribute to student success. The project will examine transition practices, vocational programs, preparation for post secondary education, and academic expectations at some of the best schools in the nation. In addition, the Beacons project will develop strategies to help other schools adopt practices that allow students with disabilities to achieve exemplary results.

For more information, contact Teri Wallace, The Institute on Community Integration, University of Minnesota, 111A Pattee Hall, 150 Pillsbury Dr., SE, Minneapolis, MN 55455, 612-626-7220.

---

*The Council for Exceptional Children—the largest professional association for special educators, related service providers, and parents—works to improve the educational success of students with disabilities and/or gifts and talents. The Council represents members serving more than 5 million students with disabilities and 2.5 million gifted students in the United States.

Department of Education's Web Site Offers Much

Faster searches, greater access to information, and attractive layouts await users of the newly redesigned Education Department Web site (*http://www.ed.gov/*). Student financial aid materials, tips for parents, statistics, and the latest findings on what works in education are among the documents stored on the site, helping make it one of the most widely used education resources on the Internet.

Among the improvements:

- A state-of-the-art search engine that sifts through more than 20,000 files to produce much faster and more accurate results;
- A new "cross-site indexing" project (*http://www.ed.gov/Search/*), extending searches beyond Education Department offices to more than 100 Department-sponsored Web sites;
- "Topics A-Z," offering an alphabetical list of links to the best starting points for several hundred topics;
- Links to the most frequently requested information;
- Revamped buttons that make popular information such as "Student Financial Assistance" and "Research and Statistics" easier to find.

A "Contact Us" page provides e-mail addresses, toll-free telephone numbers, and postal addresses for key contacts; a link to the department's ongoing Internet customer survey; and links to education-related conference and event calendars at department-sponsored sites, as well as more prominent connections to state education agencies. The Web site is hosted by the Department's National Library of Education.

BEST COPY AVAILABLE

New National Clearinghouse for Education Facilities

A National Clearinghouse for Education Facilities is now available to provide information and assistance for all facets of school facility planning, design, construction, and maintenance.

Established by the U.S. Department of Education, through the National Library of Education, the Clearinghouse offers

- information resources,
- technical assistance,
- training and workshops,
- critical issue materials, and
- regional/national conferences.

For more information, contact

National Clearinghouse for Education Facilities
1700 Kraft Drive, Suite 2200
Blacksburg, Virginia 24060
Toll Free: 1-888-552-0624
E-mail: ncefinfo@edfacilities.org

An Innovative Title I Project Gets Kentucky Parents Involved

by Sheri Bumgardner, AEL Staff

An imaginative computer project in Bullitt County, Kentucky, challenges parents to take an active part in their children's education. The Parent Involvement Laptop Computer Program was initiated at Overdale Elementary and Maryville Elementary in February 1996 for Title I students in grades one through five. The program is supported by U.S. Department of Education Title I funds.

Classes are designed specially for the student/parent team. Nedra Wiseman, who coordinates the program as a micro-computer specialist for Bullitt County Schools, says, "We adapt our program around parents' varied schedules. Sessions are offered every morning Monday through Thursday and two evenings a week."

The program is unusual because parents commit to working alongside their children as they learn computer skills. "The project's benefits are not confined to the walls of the classroom," she noted. "Parents find they are becoming more effective teachers at home. By examining work sheets and records of work, parents monitor student progress, which enables them to better assist with homework."

Students begin each one-hour class by practicing typing and word processing, then go on to assignments that focus on specific subjects such as math, language arts, geography, or science. The laptop computers are loaded with educational software targeted to the age and ability of each student.

It's not a one-way street. Many of the parents are working with computers for the first time. And, often as not, the children get to show their parents a thing or two on the computer.

"The kids love it when mom gets stuck on something and they have to bail her out," Wiseman observed. "A lot of times, kids will get programs going and be at a level where I've never been before. And they show me how to do things."

When the parent-student team becomes comfortable with the computer, they can take a laptop home for the weekend. Six to eight families check out computers each weekend. This easy access is important because most of the students have not had computers at home. However, since the program began, many parents have purchased computers.

Wiseman credits Overdale principal Kaye West and former Maryville principal Wayne Muncie with starting the project two years ago. Even with time constraints and a limited number of computers, 18 families participated the first year. Increased funding for the second year opened the program to every Title I student, and 75 families chose to participate. The program has become more structured as Wiseman learns what works and what does not. The first year, students chose what they wanted to work on, but, as the program

FOCUS ON INSTRUCTION

Featuring articles from teachers in the four AEL states—this issue: Kentucky has become more balanced, students are challenged to venture into new areas of learning.

"They are encouraged to use programs in the areas where they struggle the most," Wismer says. "But it also helps their self-esteem to work in programs where they excel."

She believes teachers should continue their efforts to include parents in the educational process. To that extent, the project has succeeded overwhelmingly. Parents are involved in instructional decisions as well, filling out evaluations at the end of each class to help teachers plan for future sessions.

Wismer remarked, "It gives us the opportunity to see parents, most of whom are not regular volunteers, coming into the school and participating in their child's education. At the same time, they're having fun and learning skills new to most of them."

The program fulfills another objective by giving students a foundation for 21st century technology. They learn "what the computer can do for them," while they develop essential reading and critical thinking skills. Wismer believes the project "gives these children an advantage and a head start with the technology they will use all their lives."

Based on the positive responses of teachers, parents, and students, goals for the project are ambitious. Plans are in the works to use the computers to link instruction with the Internet and help students develop their writing portfolios.

Wismer believes the laptop computer program demonstrates that many parents want to play a leading role in their children's education, and is pleased with students' positive response to the program. Said Wismer, "the parents' visits to the classroom have become weekly highlights for the students, and evidence indicates these children are achieving at higher levels with the increased parental involvement."

For more information, contact Sandra Wismer, Microcomputer Specialist, Louisville, KY, [illegible] Elementary, [illegible]; [illegible] Elementary, [illegible].

(continued from page 3)

9. U.S. General Accounting Office. (1995, April). School safety: Promising initiatives for addressing school violence (Report No. GAO/HEHS-95-106). Washington, DC: Author.

10. Howell, J. D. (Ed.). (1995, June). Guide for implementing the comprehensive strategy for serious, violent, and chronic juvenile offenders. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

11. Powell, K., Dahlberg, L., Friday, J., Mercy, J., Thornton, T., & Crawford, S. (1996). Prevention of youth violence: Rationale and characteristics of 15 evaluation projects. American Journal of Preventive Medicine, 12(5) (Suppl.), 3-12.

12. Aleem, D., et al. (1993). Review of research on ways to attain Goal Six: Creating safe, disciplined, & drug-free schools. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

13. DeJong, W. (n.d.). Building the peace: The Resolving Conflict Creatively Program (RCCP) (Program Focus). Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

14. National Institute of Justice. (1995, September). Evaluation of violence prevention programs in middle schools (Update). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

15. Bilchik, S. (1995, November). Delinquency prevention works: Program summary. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

16. Cunningham, C., Cunningham, L., Martorelli, V., Tran, A., Young, J., & Zacharias, R. (1997). The effects of primary division, student-mediated conflict resolution programs on playground aggression. Hamilton, Ontario, Canada: Chedoke-McMaster Hospitals and McMaster University.

17. Walker, H., Horner, R., Sugai, G., Bullis, M., Sprague, J., Bricker, D., & Kaufman, M. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. Journal of Emotional and Behavior Disorders, 4(4), 194-209.

18. Johnson, D., Johnson, R., Dudley, B., & [illegible] (1997). The three Cs of safe schools. Educational Leadership, 55(2), 8-13.

19. Walker, H., Colvin, G., & Ramsey, E. (1995). Antisocial behavior in school: Strategies and best practices. Pacific Grove, CA: Brooks/Cole Publishing Company.

20. Walker, H. & Gresham, F. (1997). Making schools safer and violence free. Intervention in School and Clinic, 32(4), 199-204.

21. Greenberg, M. (1996). Final report to NIMH: The PATHS Project: Preventive intervention for children (Grant No. R01MH42131). Seattle, WA: University of Washington, Department of Psychology.

22

VOL. 17, NO. 1 • Spring 1998

INSIDE AEL

Register Now for Summer Professional Development from AEL

Sixth Annual Institute on Curriculum Integration

June 22-26, 1998—Lexington, KY
July 13-17, 1998—Nashville, TN

The Institute provides school and district teams and curriculum leaders with opportunities, tools, and resources for planning integrated courses, units, and lessons. The activities and materials emphasize the roles of learner-centered instruction, standards-driven curriculum, and performance-based assessment.

The Institute is a perfect setting for school and district planning in these areas:

- Interdisciplinary curriculum
- Block scheduling
- School-to-work activities
- Multiple assessment strategies

Interdisciplinary teams, career cluster teams, multiple site project teams, inclusionary learning teams, and professional development leaders are among those who can benefit from the institute experience. Participants leave the institute with

- a plan for implementing interdisciplinary teamed instruction;
- a team-developed integrated unit;
- specific instructional practices such as project-based learning, multiple intelligences, and community-based learning;
- strategies for developing alternative assessments, performance criteria, and scoring rubrics; and
- resources for effective teamwork, community building, and networking.

Registrations ($350/person) will be accepted until May 22 with accompanying check, money order, or purchase order payable to AEL. Teams of six or more receive a 10% discount. The registration fee includes tuition, all activities, materials, team consultation, daily lunches, and one breakfast. If you wish to use the Institute for continuing education, recertification, or graduate credit, AEL will supply a syllabus.

Visit our web site (http://www.ael.org/cci/ici) for more details and a registration form.

For more information, contact Rebecca Burns at AEL (burnsr@ael.org).

Increase Student Achievement With More Effective Questioning

A Training-for-Trainers Event
June 15-20, 1998 • Lexington, KY

Do you want to help your students become better thinkers and hold them more accountable for their own learning? You can, with a staff development program called QUILT—Questioning and Understanding to Improve Learning and Thinking. Designed to increase student learning by improving teachers' classroom questioning techniques, QUILT complements and supports many existing staff development programs.

QUILT encourages teachers to restructure their classrooms such that the learning environment becomes more active, more student-centered, more constructivist, more inquiry-based, and more metacognitive.

QUILT's training-of-trainers approach helps school districts prepare cadres of local teachers who then train others in their schools, districts, and states. Typically, a local school team (two teachers and an administrator) attends a week-long training where they learn how to facilitate QUILT with their own faculty. The QUILT program has been successfully implemented in elementary, middle, and high schools. AEL staff have instructed more than 400 QUILT trainers, who have presented the material to more than 8,000 teachers.

The QUILT program

- is nationally validated, certified by the U.S. Department of Education's Program Effectiveness Panel as a "program that works";
- has a successful track record in more than 200 schools in 20 states and territories since 1991; and
- is research based, incorporating practices and techniques linked by research to higher levels of student achievement.

Costs for the weeklong training, five group lunches, refreshments, and materials are covered in the registration fee of $875.

For more information, contact Sandra Orletsky (orletsks@ael.org) or Beth Sattes (sattesb@ael.org) at AEL.

AEL Web Site Gets New Look

You may have visited our web site in the past and felt overwhelmed by the large amount of text you found. We know it was sometimes hard to look for information by categories, because we had everything organized according to the structure of our internal operations—fine for us, but confusing for you!

Well, we've changed. A few months ago, we began mounting our newly configured web site. We wanted to do several things: make our pages less text heavy and more interactive, provide activities you can use in your home or classroom, and connect you with other resources you might find interesting and useful.

Today, you can go to www.ael.org and see the latest edition of our new magazine-style format. Our redesigned home page displays "headline stories" with brief descriptions inviting you to jump in and explore. Along the left-hand column, you'll find "buttons" for each major division of our corporation. They, too, have main home pages with headline stories, some of which are interactive—surveys, quizzes, registration forms, and field testing opportunities await you. For example, the March 1998 edition invited Tennessee teachers to participate in a web site testing project.

Some pages offer a "Bookmarks" section, which describes other resources related to an interest area and provides contact information or direct links. Many of the listings you'll find in these sections are used regularly by our staff as tools for research and development.

And, there's fun for everyone in our various activity pages. For instance, under SSD Projects, you can choose Voices, then "Granny Did What?" You'll find an activity designed for middle school girls that can be adapted for use in any classroom. Or, under the Regional Educational Laboratory section, choose Family Connections, then go to examples of activities. Here you can download sample activities and read-alouds for preschoolers.

Don't miss the Headline Archives button near the bottom of the home page. Use it to catch up on all the issues and activities you missed, if you haven't been surfing our site recently!

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit Org.
U.S. Postage Paid
Permit No. 2560
Charleston, WV
25301

The LINK
AEL
Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested
Telephone
304-347-0400
800-624-9120
304-347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell
Executive Director
Carolyn Luzader, Editor

Editorial Board
Diana Bowman
Soleil Gregg
Pat Hammer
Jane Hange
Merrill Meehan
Carla McClure
Pat Hazel
Beth Sattes

```
[illegible]
***********************5-DIGIT 25325
AEL [illegible]                    [illegible]
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348
```

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer.

The LINK

AEL—linking the knowledge from research with the wisdom from practice to improve teaching and learning

Vol. 17
No. 2
•
Summer
1998

Nurturing Student Writers

by Carla McClure, AEL Staff Writer

Teachers long to read student compositions as clear and strong as Hemingway's. But experts debate whether such writing can be taught. "Maybe not," says William Zinsser, author of On Writing Well, "but [the principles of good writing] can be learned."

Two years ago, a team of researchers set out to identify attitudes and conditions that nurture such learning. So far, team members from AEL and the Kentucky Department of Education have interviewed more than 100 teachers, 200 randomly selected students, and 50 administrators in 25 Kentucky schools. Some of these schools have been more successful than others in helping students improve their writing portfolio scores on the state assessment.

Preliminary findings show that teachers in the more successful schools received vigorous support from school and district administrators and focused their students on writing for its own sake rather than writing to produce perfect portfolios. Their students do many different kinds of writing across the curriculum, both to enhance learning and to communicate.

These students also are likely familiar with all five stages of the writing process: prewriting, drafting, revising, editing, and publishing. Teachers often encourage students to consult with them or with one another about their work. One fourth grade student reported that she had taught her mother what types of questions to ask about her writing and which questions or suggestions to avoid.

"It's important that those who conference with student writers learn to stimulate improvement without taking ownership of the writing from the student," according to AEL researcher Pamelia Coe. "Teachers can circle misspelled words, grammatical errors, or poorly developed paragraphs. They can write questions in the margins. But they can't correct students' portfolio pieces for them."

In Kentucky, student writing portfolios are assessed in grades 4, 7, and 12. Assessments are based on a four-

[The successful schools'] students also are likely familiar with all five stages of the writing process: prewriting, drafting, revising, editing, and publishing.

continued on page 2

30 YEARS OF SERVICE

[illegible]

IN THIS ISSUE

RESEARCH NOTES
Nurturing Student Writers, p. 1
[illegible], p. 3

[illegible]
[illegible], p. 5

[illegible]
[illegible], p. 8

AROUND THE REGION
[illegible], p. 7

INSIDE AEL
[illegible], p. 9
[illegible], p. 10
[illegible], p. 11
[illegible], p. 12

tional scale: novice, apprentice, proficient and distinguished. Students submit creative and reflective pieces and "real-world" writing such as editorials, business letters, and reports.

"Skilled teachers find ways to give children reasons to communicate to real audiences," writes Foxfire founder Eliot Wigginton. The Kentucky Writing Program encourages transactive writing (written for and read by a real audience), which can reward writers with a response or a result. Residents of a western Kentucky community donated blood after reading persuasive pieces written by local students who organized a blood drive. One high school student wrote step-by-step instructions for changing a tractor bearing that were so precise they were posted in the barn, where workers on the family farm consult them frequently.

Teachers who don't teach language arts can integrate writing into their curricula by making assignments that allow students natural opportunities to write. "One reason writing portfolios have become an onerous part of the Kentucky assessment is that teachers are trying to teach writing separately," observes Cox. The most successful schools have developed strategies for involving all teachers in the effort. "Language arts teachers may instruct other teachers in how to lead students through the writing process," said Cox. "Then

Solicit Student Views About Your Writing Program

Consider using these questions in your classroom. You'll find your students can provide valuable insight into your writing program. Ask someone from outside the school/class to conduct the interviews so that students will feel comfortable about giving complete answers.

The Writing Experience

- Do you consider yourself a good writer?
- How do you feel about writing? What kinds of writing do you most enjoy? Least enjoy?
- What has helped you most to improve your writing?
- How many times a week do you usually write in English/language arts class? What about in other subjects?
- What kind of writing do you do in other subject areas? Give some examples.
- Do you do all your writing at school, or do you write other places?
- Do you write when you don't have to for school?
- Do you use a computer to write at school? At home?
- If so, how do you use it (composing and revising, online sharing of writing or on-line discussions, lessons, searches for information, etc.)?
- Do you think writing helps you learn better?
- If yes, how does it help? Is it more helpful in some subjects than in others? In what subjects is it most helpful?
- Do you give your writing to other students to read? If yes, do they give you suggestions for improvement?
- Do you give things you've written to people outside of school to read? If so, who, and do you give your writing to them to enjoy, to give you feedback, or both?
- Do any members of your family help you with writing? If so, who and how?
- Do you read things other people have written? Do you make suggestions for improvement?

The Writing Portfolio

- What do you like (and dislike) most about putting together a writing portfolio?
- How do you decide on topics and formats for "real world writing"? Give an example.
- Where has your writing been published, read, or displayed other than in your portfolio?
- Do any of your teachers share their writing with you? If so, tell me about it.
- Describe a piece of writing that's in your portfolio now that you really like. Why do you like that one more than others?
- Do you think you write better now than you did at the end of last year? If so, what's better about your writing now?
- Do you think the level of writing being expected of students is too high for many students to achieve?
- Do you have any final comments or suggestions?

BEST COPY AVAILABLE

philosophy is, 'You make assignments that prompt students to write, and I'll lead them through the polishing process.'"

How will schools know if they're doing the right thing? "We hope that what comes out of this study is something that can really be helpful for teachers and schools and students," says Claudia [illegible], Kentucky Writing Program consultant. Ultimately, the team's findings will help them create a process schools can use to plan improvements in their writing instruction. Department staff also will use the information to evaluate and plan future professional development offerings.

Through the use of interview questions, "students can give teachers valuable feedback on what is and isn't working," says AEL researcher [illegible]. "The questions we have used throughout this study work well at all grade levels" (see box on page 3).

The research project, begun in 1996, is conducted by staff members of the Appalachia Educational Laboratory, the Kentucky Department of Education, and the Kentucky Regional Writing Consultants. [illegible]

Characteristics of Successful Writing Programs: A Summary of Tentative Indicators

School/District Support

The district allocates resources and establishes policies that demonstrate commitment to the writing program. The principal provides resources, technical assistance, and/or professional development. A high degree of collegiality is found among teachers. Language arts teachers understand the writing process and how to develop and score portfolios.

Instructional Strategies

Teachers promote peer conferencing as well as student-teacher conferencing, spend substantial time on prewriting activities, provide latitude for students to choose topics and/or formats when they write, model parts of the writing process, teach the mechanics of writing in the context of students' writing, and sometimes share their own writing with students. Students write frequently in all subjects for "real-world" audiences.

Student Attitudes and Behaviors

Students speak of themselves as writers, see writing as a routine part of their school day, carry a working portfolio with them from year to year, and expect that writing competence will be necessary in adult life. They believe they can become proficient writers and are able to describe how their writing has improved. They know how to work collaboratively with peers and use the vocabulary of the writing process.

One Design for Schoolwide Evaluation

by [illegible], AEL Staff Writer

"For years we've gotten by with piecemeal evaluations," says AEL senior researcher Merrill Meehan. "A district would evaluate its curricula when the state adopted new standards of learning. A school would evaluate teaching staff before beginning professional development. A county would survey parents to find out what they thought of school quality. But, during those years of piecemeal evaluations and assessments, we learned that real change generally happens when implemented comprehensively. Professional development programs may improve teaching, but they don't do much toward increasing parent involvement. A new curriculum won't necessarily improve students' attitudes about school."

This understanding of the importance of comprehensive change shows up in new program requirements. Recent Title I regulations put emphasis on schoolwide improvements and Congress has enacted the Comprehensive School Reform Demonstration Program, which supports total school improvement. Educators and administrators need schoolwide assessment and evaluation methods to help them implement change.

That's where Meehan comes in, with a 1998 project he directed in West Virginia's Monongalia County. Assisted by county Title I director [illegible], coordinator [illegible], and consultant [illegible] Sullivan, Meehan took a comprehensive look at nine county elementary schools. The team set out to do a needs assessment, but the project's methods can (and will) be used for both formative and summative evaluations.

"You should understand there's nothing revolutionary in the methods we used; they're four very familiar assessment and evaluation techniques. One difference between what we

BEST COPY AVAILABLE

did and what might have been done 15 years ago is that we used all four techniques, rather than using one or two," Meehan explains. "And we were more thorough in applying them."

The other difference, according to Meehan, was the project's philosophy: "We wanted to involve the stakeholders. By that I mean we wanted them to buy in, to actively participate in the data collection and not just have it done to them."

The Starting Point

Of the nine schools studied, most are very new (one or two years) to the Title I program. Eight of the nine are rural, and all are small, ranging in size from 66 students to 272. Alsop had an overall vision, based on Ernest Boyer's Basic School, of what she hoped these schools could become. She outlined a strategic planning process and presented it to Meehan, asking for his help with the first two stages. (See Figure 1.) Together, they negotiated a strategy for collecting the information she and Meehan wanted.

They ensured that enough time would be devoted to the project by setting aside half of each day during the 95-96 school year for each school's Title I Reading Resource teacher to work with the principals on the project.

The Design

To answer the first two questions—Where Are We Now? and What Do We Want To Do? —Meehan and Alsop agreed on four methodologies. (See Figure 2.)

The first, **paper and pencil surveys**, employed standard *Dimensions of Excellence* forms. In addition to surveying school staff (everyone from principals to bus drivers and school cooks) and parents, they took the extra step of including students. The surveys filled out by staff and parents covered eight areas of interest: school climate, leadership, teacher behavior, curriculum, monitoring and assessment, student discipline and behavior, staff development, and parent involvement. Student surveys addressed school climate, teacher behavior, monitoring and assessment, and student discipline and behavior.

The second, **staff-compiled individual school data** reports, relied on each school's staff to take a detailed look at demographics, school processes, student achievement, parent/community involvement, teacher demographics, and professional development.

While the above were conducted by people within the schools and with parents, Meehan himself handled the **structured interviews** and the **school and classroom observations**. He looked and asked for information related to questions asked on the surveys, but in a more personal manner and from slightly different perspectives. He paid particular attention to the school environment, curriculum materials, parent involvement, decision-making styles, student engagement, library facilities, school goals, and the like. He described himself as "Jimmy Gumshoe, wandering the buildings observing, listening, asking questions, and making notes. Some of the staff thought I might be there to help get them new buildings or new equipment, but really I was after anything and everything I could find about the school."

Where are we now?	Stage 1. Needs Awareness • Examine beliefs/vision, teaching, and learning • Determine mission statement • Establish a school profile database
What do we want to do?	Stage 2. Analysis • Analyze school profile data • Review research data • Develop written goals • Establish an academic framework • Create new thinking
What do we want to see more of in five years?	Stage 3. Development • Develop an academic plan • Design organization structures • Plan strategies for management • Organize staff development • Extend new thinking
What is working? What isn't?	Stage 4. Validation/Implementation • Implement plan • Experiment/revise/rework/revisit • Seek collaboration among staff • Put support systems in place
How do we need to change?	Stage 5. Evaluation • Analyze data • Document evidence of success • Build new school profile • Provide feedback • Reflect for change • Revise

Figure 1. Monongalia County Schools Title I Program's Strategic Planning Process (Designed by Marie Alsop, Monongalia County Title I Director)

The Recommendations

Once the data were collected, Meehan brought Sullivan on board and they began sorting and analyzing the information. Then the use of the four methodologies really began to pay off, according to Meehan. "We could look at so many aspects from so many points of view. We didn't need to infer from the reports of one group what another group might think. We had it right there in our interviews, observations, and surveys."

Then, where they could, they compared beliefs to actualities. They looked at the teachers' judgments of student achievement next to scores from standardized tests such as CTBS, WV Writing Assessments, and WV-STEP Reading and Mathematics.

Each of the nine schools received a report on its individual needs, and the results of these reports were then compiled into a needs assessment report on school improvement for the Title I program as a whole.

Each of the nine school teams used its individual report to help develop a schoolwide improvement plan. Alsop took the overall conclusions and recommendations and worked them into Stages 3 and 4 of her strategic planning process. She and the schools are now working on implementing those stages. Soon, Meehan expects, they'll repeat the four processes they used for the needs assessment, this time to create a progress report. And, eventually, those four processes will help the team produce a summative evaluation report.

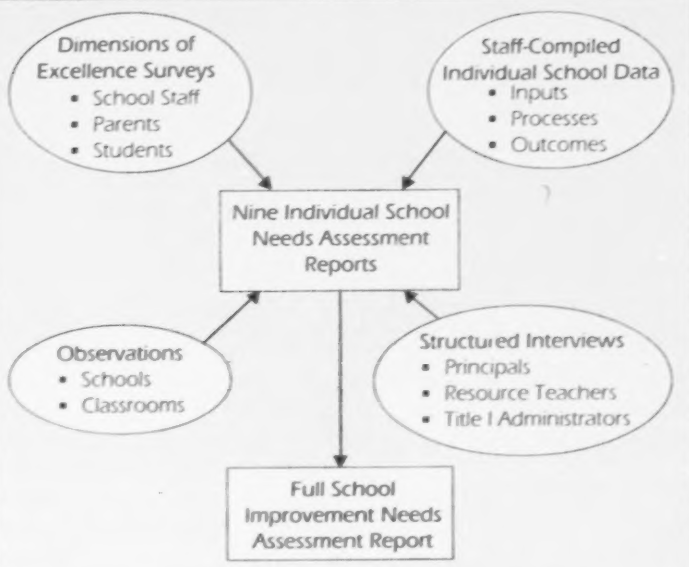

Dimensions of Excellence Surveys
• School Staff
• Parents
• Students
Staff-Compiled Individual School Data
• Inputs
• Processes
• Outcomes
Nine Individual School Needs Assessment Reports
Observations
• Schools
• Classrooms
Structured Interviews
• Principals
• Resource Teachers
• Title I Administrators
Full School Improvement Needs Assessment Report

Figure 2. Graphic Portrayal of the School Improvement Needs Assessment Design

"The beauty of this design," says Meehan, "lies in its versatility. It provides a total picture of your target group—one school or a whole district—which can then be used for different purposes: needs assessment or evaluation. And, because the data collection is so comprehensive, it allows for a truly creative and comprehensive list of recommendations. I think that's what today's schools want and need."

For more information, contact Merrill Meehan at AEL; e-mail meehanm@ael.org.

NOTEWORTHY

New One-Stop Web Site for Teachers
www.ed.gov/free

In early April, U.S. Secretary of Education Richard Riley announced a new Web site featuring hundreds of federal resources for teaching and learning. Titled "Federal Resources for Educational Excellence" (FREE), the site offers a treasure trove of historical documents, mathematical challenges, famous paintings, and other tools for teachers and students.

More than 40 federal agencies contributed resources to FREE, and, as a result, thousands of topics—including the Civil War, the Constitution, photosynthesis, immigration, Jackie Robinson, the America Reads Challenge, famous FBI cases, the human genome project, and many more—can be searched.

"This Web site offers a glimpse of how government can use technology to serve citizens in ways barely dreamed of a decade ago," said Riley. "FREE is just a first step. And it is more than just another Web site. It is a place where federal agencies and teachers can begin forming partnerships to develop additional high-quality, standards-based resources for teaching and learning."

BEST COPY AVAILABLE

Environmental Classroom Connects Students to Nature

by Nancy Balow, AEL Staff Writer

FOCUS ON INSTRUCTION

Featuring articles about teachers in the four AEL states—this issue, Tennessee

"This has been my dream ever since I began teaching 20 years ago," says Patricia Rutter, a 5th-grade teacher at Love Chapel Elementary in Tennessee's rural Unicoi County. Her long wait ended on August 31, 1996, when she was awarded grants to build the outdoor classroom her students "can't get enough of."

When Rutter transferred to Love Chapel six years ago, her eyes lit up at the sight of the open space on the school grounds. Much of the acreage is reserved for a new school building, but an area 110' x 115' is dedicated to the new outdoor learning space. Maple trees more than 100 years old already lived on this space, and they provided proof of the need for the new facility.

"One day I showed my science classes a maple seed," explained Rutter. "They had no earthly idea what it really was, they thought of it as a 'helicopter' or 'whirligig.' Only seven kids out of 75 knew that it was a seed. Even in our rural community kids are forgetting that you get food by growing it. They've lost the understanding of the relationship between people and the land."

Rutter and her husband Ira, helped by two inmates from the Unicoi County jail, did the early "heavy work that children can't do," digging beds and building fences. During the summer of 1997 everyone pitched in: Parents provided materials such as seeds, gravel, and mulch from their businesses at cost; local organizations and individuals made financial and in-kind contributions; a landscape architect helped with design ideas; and many parents turned out to spend a few hours working in the gardens.

Today the environmental classroom includes a colonial garden, which features plants used by American colonists; a literature garden, which includes nearly all the trees and herbs mentioned in Vera and Bill Cleaver's *Where the Lilies Bloom,* one of Rutter's favorite teaching books; a vegetable garden; a fruit and berry garden, which features three colors of apples, three colors of grapes, three colors of blueberries ("Burpee's has everything!" exclaims Rutter), and the usual colors of peaches, raspberries, and strawberries; a butterfly garden; a water garden; and a special Iris garden, in the shape of the state of Tennessee and filled with three colors of hybrid Iris.

Picnic-type tables in the outdoor area provide working space for lessons, during some of which students have built baths, feeders, and

Use this form to order materials **from AEL,** as well as from the **ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)**. Please check (✔) your selections and complete the shipping information below.

Be sure to include payment for priced items.

Please add my friend or colleague to your mailing list: (please print legibly)

Name:
Title:
Organization:
Address:

AEL Order Form

☞ Pull out ✍ Fill out ☒ Mail back

Shipping information: (please print legibly)

Name:
Title:
Organization:
Address:

Postage Required

Daytime phone or e-mail:

(in case we have a question about your order)

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Resources Available from AEL

Some documents can be downloaded from our Web site: http://www.ael.org

____ ***ADHD—Building academic success (1995)***

This issue of *Policy Briefs* examines how the mismatch between school environments and children with ADHD contributes to school failure. It discusses multimodal treatment both in terms of individual classroom accommodations and global changes in the environment, and suggests how changes in policy and practice can help schools become places of growth and development for all children. $2; 10 pp.

★____ ***A guide to gender fair education in science and mathematics* (1998)**

This publication presents information gathered from the research and programs developed by hundreds of teachers and researchers in the field of educational equity. The activities highlighted are examples of programs supported by the U.S. Department of Education and National Science Foundation, as well as states, counties, and cities. It includes an annotated bibliography of programs for girls in grades K-12. $15; 40 pp.

____ ***Children of* la frontera*: Binational efforts to serve Mexican migrant and immigrant students (1996)***

Who are the children of *la frontera*? What do we need to know to help these youngsters become the next group of U.S. college students, technicians, professionals, artists, and participating citizens? These are the questions more than 20 respected practitioners and scholars address in the chapters of this book. The authors present information about the historic and current context of relations between Mexico and the United States, schooling in Mexico, binational education and health programs, and effective practice in the classroom and in working with families. $18; 352 pp.

____ ***Community service/service learning: An implementor's guide and resource manual (1996)***

This guide for educators and community/business representatives describes four service learning models, suggests activities for various school levels, highlights 27 Kentucky projects, and provides information about other resources and organizations. $14; 187 pp.

____ ***Continuity in early childhood: A framework for home, school, and community linkages (1996)***

The *Framework* provides communities with a means to assess efforts to link and integrate early childhood and early elementary school services. $15; 139 pp.

____ ***Dissolving the boundaries: Planning for curriculum integration in middle and secondary schools (1995)***

This publication helps secondary school faculties prepare for curriculum integration through a four-step process. Book (with 78-page facilitator's guide), $24.95; additional copies of book only, $10; 83 pp.

____ ***EdTalk: Checking up on early childhood care and education (1995)***

This easy-to-use checklist synthesizes information from early childhood research and development. Also included are highlights of key federal laws and steps to successful implementation. $5; 38 pp.

____ ***EdTalk: Plugging in: Choosing and using educational technology (1995)***

This document helps educators choose technologies that support student learning. $5; 46 pp.

____ ***EdTalk: What we know about reading teaching and learning (1996)***

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited-English-proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5, 70 pp.

★____ ***Expanding the vision: New roles for educational service agencies (1998)***

Educational service agencies can serve an essential role today to rural districts as they face the challenges of systemic school reform, according to E. Robert Stephens in this book from AEL's Rural Center. Stephens details the forces that are shaping current expectations of rural public education and lays the groundwork for considering future possibilities for agency programs and services. $15; 172 pp.

____ ***Facilitating systemic change in science and mathematics education: A toolkit for professional developers (1995)***

The purpose of this toolkit is to broaden and strengthen the expertise of individuals who help teachers and schools improve science and mathematics education. $45; 578 pp.

____ ***Family Connections Parent Notebook***

The Family Connections learning guides—previously available only to educational programs—are now offered in a notebook for parents. The colorful, user-friendly learning guides are available in three volumes: *Family Connections 1* is for families of preschool children, *Relaciones Familiares 1* is the Spanish-language version, and *Family Connections 2* is for parents with kindergarten children. Each notebook contains a set of 30 four-page guides, plus tips for using them. Each guide includes a **message** to parents, one or more **read-aloud** selections, and fun **activities** for parents and children. $12.95 each ($9.95 without 3-ring binder).

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free**

____ **Inclusion (1996)**

____ **Respectful Learning Environments (1997)**

★____ ***Graphing Calculators in Mathematics Grades 7 — 12: A Resource Guide for the Classroom and for Preservice/Inservice Training***

This resource guide—developed by the Center of Excellence for Science and Mathematics Education (CESME) and published by the Eisenhower Regional Consortium for Mathematics and Science Education at AEL—offers a series of lessons covering a wide variety of mathematical concepts and topics. Planned for teachers with no experience with graphing calculators and for those who have used the instruments since their inception, these lessons emphasize hands-on, problem-solving approaches, with connections to science and the real world. (available early summer 1998) $39; 250 pp.

____ ***Inclusion of special needs students: Lessons from experience (1996)***

Seven pairs of regular and special education teachers—in collaboration with the Virginia Education Association, special education faculty of the College of William and Mary, and AEL—investigated teacher questions and provided solutions from their extensive experience with inclusion. $9; 94 pp.

____ ***Increasing student access to mathematics and science: A guide for classroom equity projects (1995)***

This guide is designed to help teachers plan, seek funding and resources, and implement projects that increase student involvement in mathematics and science education. $5; 44 pp.

____ ***Interdisciplinary units with alternative assessments: A teacher-developed compendium (1995)***

Fifteen refined, field-tested, interdisciplinary curriculum units with alternative assessments compose the largest section of this resource for teachers. Seven teams of Virginia teachers received training, developed the units and assessments, and field-tested them with their students. $12; 141 pp.

____ ***1997 Native education directory: Organizations and resources***

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; Congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover ISBN 1-880785-17-X

BEST COPY AVAILABLE

___ ***Nonlinear evolution of school-based decision making in Kentucky (1996)***
This five-year study of how school councils evolved in four rural Kentucky school districts addresses three major areas: (1) shared decision making among represented role groups, (2) factors that facilitate or impede shared decision making, and (3) kinds of decisions made and their impact on schools. $5; 31 pp. (First 200 in print available at no charge.)

___ ***Notes from the field: Five years of education reform in rural Kentucky, Vol. 5, No. 1 (1996)***
This publication is designed to provide ongoing information about the implementation of the Kentucky Education Reform Act of 1990 (KERA) in four rural school districts over five years. In this issue, findings of AEL's five-year study are summarized. $2; 8 pp.

___ ***Planning schools to serve rural communities (1996)***
This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas. Free, 8 pp.

___ ***Preventing antisocial behavior in disabled and at-risk students (1996)***
This issue of *Policy Briefs* focuses especially on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2, 12 pp.

___ ***Putting the pieces together: Comprehensive school-linked strategies for children and families (1996)***
This guidebook helps schools, families, and communities develop partnerships that help children and youth, families, and neighborhoods succeed. $8; 98 pp.

___ **Rural education directory: Organizations and resources (1996)**
This directory includes information about national organizations; federal government programs; state organizations; state department of education rural program coordinators; state data centers; and rural journals. $6; 65 pp.

★___ ***School-based programs to promote safety and civility (1998)***
More and more, schools are adopting various antiviolence programs which, until recently, hadn't been studied for effectiveness. Now, several rigorous studies provide information to help schools and policy makers select methods that may work for them. This *Policy Brief* looks at these studies and reviews the programs found to be most effective. The publication focuses on more than 20 primary and secondary level programs, all of which get a thumbs-up from researchers. Complete contact information is provided for each program. $2; 12 pp.

★___ ***Schools for disruptive students: A questionable alternative? (1998)***
Recent safe-schools legislation and commitments to provide orderly, safe learning environments have prompted states to create alternative schools for disruptive students. This issue of *Policy Briefs* reviews the research on alternative schools and suggests indicators policy makers can monitor to judge the effectiveness of alternative school legislation. $2; 8 pp.

___ ***Scope it out: Standards-based micro-scope lessons for the middle school (1996)***
Designed to help fifth- through eighth-grade teachers use the microscope in their classrooms, this resource contains lessons developed by classroom teachers and classroom activities reflecting the *National Science Education Standards*. $5; 62 pp.

___ ***Teacher perceptions of and strategies for inclusion: A regional summary of focus group interview findings (1996)***
In 16 focus group interviews conducted in the AEL Region, 144 regular and special education teachers discussed their concerns about and effective strategies for inclusion. $15; 240 pp. State summaries of interview findings are also available at no additional cost (one state summary per purchase): *Concerns About and Effective Strategies for Inclusion: Focus Group Interview Findings* from (KY, TN, VA, or WV).

___ ***The public school superintendency: A comprehensive profile (1996)***
This historical overview of the superintendency illustrates that the role has been responsive to the social and economic conditions that shaped the development of U.S. public schools. The paper explores superintendents' perceptions of and preparation for their roles. $7; 60 pp. (First 200 in print available at no charge.)

___ ***The Telecommunications Act of 1996: A guide for educators (1997)***
The Snowe-Rockefeller-Exon-Kerrey Amendment of the Telecommunications Act of 1996 provides telecommunications discounts to schools. This issue of *Policy Briefs* describes what schools should know to be ready to take advantage of the discounts. On-line version: http://www.ael.org/rel/policy/fcc97.htm. Print version: $2; 14 pp.

___ ***Understanding and identifying children with ADHD: First steps to effective intervention (1995)***
This issue of *Policy Briefs* reviews the characteristics and causes of ADHD, how it is diagnosed and treated, how it affects children and school performance, its history, and long-term outcomes. $2; 8 pp.

___ ***Voices from the field: Secondary school inclusion in the AEL Region (1996)***
State-level officials and professional association staff in each of AEL's four states identified exemplary schools implementing inclusion. This audiotape presents interviews with principals and special educators at these schools. $10; 45 min.

★ Recently published.

AEL Information (free)

- ☐ AEL Products & Publications Catalog
- ☐ Family Connections I and II—take-home learning guides for young children
- ☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons
- ☐ QUEST—a process to help schools along the improvement journey
- ☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

---

Information Search Packages

These information packages contain a variety of current resources and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources.

___ **Block scheduling (1996) $15; 142 pp.**

___ **Inclusion (1995) $16; 219 pp.**

___ **Promoting safe schools (1996) $15; 178 pp.**

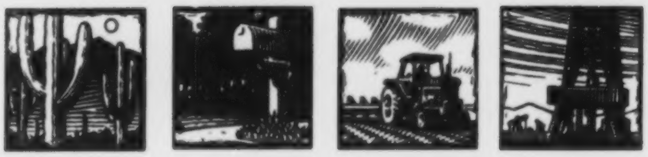
★___ **Technology in Education (1998) $15; 136 pp.**

Workshop Packages

___ ***Systemic reform in mathematics and science: A workshop for schools and communities (1995)***
Information and hands-on activities in this workshop increase awareness of systemic reform, national standards, changes in classroom environment and instructional practices, and the role of partnerships in reform. The step-by-step guide and videotape highlight legislation and trends. $100 (without training), 132 pp. For assistance with training, contact the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

___ ***Marginal learners: Identification, prevention, and intervention (1995)***
Each of the six content modules in this workshop package is designed as a 3- to 4-hour workshop that can be presented individually or as part of a series. The modules are sequenced, from identifying marginal learners to examining and adapting school and district policies and practices. Topics include the needs of marginal learners, proven practices, and planning improvement efforts. $50; 362 pp.

BEST COPY AVAILABLE



Low-Cost Books and FREE Resources

from the

ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

★___ ***Finding Their Own Place: Youth from Three Small Rural Communities Take Part in Instructive School-to-Work Experiences***

By Bruce A. Miller and Karen Hahn, 1997, 114 pp., soft cover, ISBN 1-800785-18-8, $12

The experiences of three rural and remote communities challenge common beliefs about the lack of opportunity for rural youth to participate in meaningful and instructive school-to-work experiences in their own small, rural communities. But to create such opportunities, schools, community members, and policy makers had to work together. The author describes how the programs succeeded, including planning phases and creating policy support for innovative approaches. Book includes advice and resource information.

___ ***Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning***

By Clifford E. Knapp, 1996, 108 pp., soft cover, ISBN 1-880785-15-3, $12

Much academic learning can take place in students' everyday environments. For example, a local shopping mall can be the site for learning a great deal about human behavior; exploring a cemetery can be like reading a book. To help teachers turn these themes into meaningful interdisciplinary learning experiences, Knapp includes background information, possible outcomes, activities, reflection questions, and performance assessments. He also explains how this type of interdisciplinary learning relates to historic and current education practice and reform. The outdoor adventures described are organized around themes such as science, math, social studies, language arts, and others.

___ ***Local Schools of Thought: A Search for Purpose in Rural Education***

By Clark D. Webb, Larry K. Shumway, and R. Wayne Shute, 1996, 77 pp., soft cover, ISBN 1-880785-14-5, $12

A dominant perspective operating in U.S. education is teaching by "method" or "strategy." However, as we progress past the first decade in our effort to improve the nation's schools, technical improvements do not seem to be the whole answer. This new book looks beyond improving technique to examining purposes, and to the role that the individual teacher can play in making a difference.

"The nature of the learning that is to proceed and the conditions necessary to that learning are the foci of Local Schools of Thought. *This is a profound shift in perspective, one that addresses the central business of our schools."* — John I. Goodlad

___ ***Sustainable Small Schools: A Handbook for Rural Communities***

1997, 150 pp., soft cover, ISBN 1-880785-16-1, $15

This handbook helps community members and educators work together to improve small, rural schools. It is written in a readable style developed for a lay audience, but also includes the concerns that teachers and administrators face when working with community members. Chapters cover the historical and political factors affecting rural, small schools; curriculum considerations; model strategies; guidance on collaboration; and use of technology. An extensive resource chapter provides much additional information.

FREE ERIC DIGESTS

RURAL EDUCATION

___ ★ *Building School-to-Work Systems in Rural America.* *H. Harmon* (1998), EDO-RC-97-7

___ *Middle Level Education in Rural America.* J. W. Wiles (1995), EDO-RC-95-7

___ ★ *The National Information Infrastructure: Keeping Rural Values and Purposes in Mind.* B. Barker & C. B. Howley (1997), EDO-RC-97-4

___ ★ *Parent and Community Involvement in Rural Schools.* S. Maynard & Aimee Howley (1997), EDO-RC-97-3

___ *Perspectives on Rural Child Care.* B. A. Beach (1997), EDO-RC-96-9

___ *The Role of Rural Schools in Rural Community Development.* B. A. Miller (1995), EDO-RC-95-3

___ *Rural School Consolidation and Student Learning.* J. Fanning (1995), EDO-RC-95-4

SMALL SCHOOLS

___ *Affective and Social Benefits of Small-Scale Schooling.* K. Cotton (1996), EDO-RC-96-5

___ *Curriculum Adequacy and Quality in High Schools Enrolling Fewer than 400 Pupils (9-12).* C. Roellke (1996), EDO-RC-96-7

___ *Ongoing Dilemmas of School Size: A Short Story.* C. Howley (1996), EDO-RC-96-6

★ Recently published.

☐ Please add my name to the ***ERIC/CRESS Bulletin*** mailing list. **Free.**

The *Bulletin*, published three times a year, announces new developments in the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS) and in the ERIC system as a whole. New ERIC/CRESS Digests, books, and services are described, as well as important publications from other sources that are of interest to outdoor and rural educators and educators of American Indians, Alaska Natives, Mexican Americans, and migrants.

Raising the flag in the environmental classroom. Visible are parts of colonial, water, butterfly, vegetable, and literature gardens. Spring 1998. Photo by Charles Edwards

houses for the birds, as well as feeders and boxes for squirrels, bats, and butterflies. The children help with the garden according to their skill levels. Kindergarten students grow the gourds that become bird houses, for example, and everyone helps with planting and weeding.

In addition to botany and biology studies, the gardens provide opportunities to study math and fine arts. Many garden beds have geometric shapes—triangles, squares, circles—and the gazebo-like amphitheater is the perfect place to perform plays and recite poetry. "The kids love it," says Rutter. "They beg to go out, even when it's cold. And last fall, their eyes—to see potatoes come out of the ground instead of a bag—that was something!"

New this year is a composter built by a parent who's a carpenter. Children save their lunch scraps, the school kitchen saves its scraps, and leaves and grass are raked, all to feed the compost pile, which the children love to stir. Other recent additions include dogwood trees, benches, and trash cans by the playground and basketball court, both of which get heavy use from community members outside of school hours. "We almost never see trash here now," explains Rutter, "the whole environmental classroom project has instilled a vast amount of pride in the school. I hope it's never completed, that we just add on as we can afford it."

The outdoor classroom project made Rutter the state finalist in the Presidential Award for Excellence in Mathematics and Science Teaching in 1997. She's been nominated again this year, and hopes to win the national award and the $7,500 boost it would provide.

Rutter does what she can to encourage other schools to add outdoor classrooms. She gives workshops when asked; she did one at the National Science Convention when it was in Nashville last December, and will speak at EarthTeach, a daylong workshop for teachers sponsored by the Appalachian-Northeast Tennessee Resource Conservation and Development Council (one of her original funders). She advises other teachers to do careful planning. "And, before you do anything else, take a grant writing course. After that, don't give up. Talk to your state conservation department. Get your community interested and it will be easier to get the money you need to get started."

The Love Chapel environmental classroom was built with a $5,000 federal grant and a $12,000 state grant, and donations of money, materials, and labor from the community. For more information, contact Patricia Rutter, Marty Crutcher (e-mail: crutcherm@tn-nash.ten.k12.tn.us), or Renee Lingerfelt (e-mail: lingerfeltr@tn-nash.ten.k12.tn.us) c/o Love Chapel Elementary, 1426 Love Station Road, Erwin TN 37650

BEST COPY AVAILABLE

AROUND THE REGION

Building a Virtual School in Tennessee

Condensed and reprinted by permission from the March 1998 (Vol. 15, No. 7) issue of Context, *published by the University of Tennessee*

This summer the University of Tennessee, Knoxville, will become the first university in the United States to offer a distance-education program to high schools via the Internet. Engineering professors and students will transmit the Governor's School for Manufacturing live over the Internet to Tennessee high schools and students, who will receive the broadcast on school and home computers.

By way of background, the Tennessee Governor's School for Manufacturing is an enrichment and educational program for state high school students. The only one of its kind in the nation, the school provides education and training on the engineering, technology, and business of manufacturing. Thirty Tennessee high school students will reside at UTK from June 15 to July 11, 1998, to attend lectures and work on projects, see manufacturing demonstrations, and visit several manufacturing companies.

This year, the expansion to a virtual school will benefit many students in metropolitan and rural areas across the state, and in both technical and academic tracks. An ordinary video camera in the classrooms will be connected to a classroom computer linked to the campus computer network. The live presentations will then "stream" through UTK's video server to the Internet. Remote students will receive this feed in near-TV quality, using dedicated software on an ordinary computer.

The remote students will join this virtual school to participate essentially in real time, by broadcasting back comments and questions over the Internet. The manufacturing school professors and instructors will address the remote students, invite and respond to their comments, and institute activities and dialogues between the resident and remote students.

This year, the virtual school will benefit from an interactive business-of-manufacturing simulation, offered by the College of Business Administration. Teams of students will start virtual businesses and compete with one another over the Internet for market share and profit. The remote students will also collaborate with the resident students on several projects within a central interaction area. Resident students will communicate live with the remote students, who will receive the video images of these study activities.

Joe Iannelli, director of the manufacturing school, conceived and proposed the project to the Tennessee Department of Education, which enthusiastically approved it and provided initial funding. Iannelli believes the virtual school is the "next best experience" to being at UTK. The Internet curriculum may eventually become an interactive "cyberspace" resource for high school students across the United States.

A Virtual School in Your District?

If you're thinking about building a virtual school in your district, take a closer look at this UTK program. Anyone can access the Web site, but you'll need a password to receive the Internet broadcast. Request one through the Web site at www.engr.utk.edu/~gschool. You'll also need RealPlayer software to view the streaming video, and that's free from www.real.com. For more information, contact:

Dr. Joe Iannelli
The University of Tennessee
Department of Mechanical & Aerospace Engineering
315 Perkins Hall
Knoxville, TN 37997-2030
e-mail: jiannell@utk.edu
Phone 423/974-4752

BEST COPY AVAILABLE

VOL. 17, NO. 2 • Summer 1998

INSIDE AEL

Comprehensive School Reform Demonstration Program: Get Ready to Apply

The Comprehensive School Reform Demonstration program, new in 1998, provides $150 million for local schools to implement comprehensive school reform programs based on reliable research and effective practices, and which include an emphasis on basic academics and parental involvement. Schools in AEL's service area that are thinking about competing for pieces of this pie need to begin preparing soon. Each state will establish its own schedule for implementing this program, as well as its own competitive process.

AEL's Web site already includes information about comprehensive school reform, and state schedules will be posted as they become available. You can also use the site to download a copy of a catalog that contains information about many reform models, including the 17 named by Congress as examples of comprehensive reform. If you don't have Internet capabilities, you can get a copy of the catalog by calling AEL at 800/624-9120 and asking for the comprehensive school reform coordinator.

Here's a brief description of the program.

Funds:

Allocations to states in AEL's Region are presented below, along with the potential number of schools (at $50,000 each) the allocation can support. Funds will flow from two sources: ESEA Title I and Fund for the Improvement of Education.

Criteria:

School-based programs must integrate all nine criteria of a comprehensive school reform program that are specified in the law, and must draw on high-quality assistance from outside partners experienced in schoolwide reform. The program is intended to stimulate change covering virtually all aspects of school operations, rather than a piecemeal, fragmented approach to reform. The specified criteria address (1) effective research-based methods and strategies, (2) comprehensive design with aligned components, (3) professional development, (4) measurable goals and benchmarks, (5) support within the school, (6) parental and community involvement, (7) external technical support and assistance, (8) evaluation strategies, and (9) coordination of resources.

Assistance:

AEL will work with each state in its Region to develop a plan for providing technical assistance to schools eligible to apply; watch our Web site for more information as it becomes available. You'll find other information at the U.S. Department of Education Web site at http://www.ed.gov/offices/OESE/compreform. You may e-mail questions to compreform@ed.gov. or to AEL at aelinfo@ael.org.

Comprehensive School Reform Allocations to AEL States

State	ESEA Title I		Fund for the Improvement of Education	
	Funding level to state (in dollars)	Potential number of schools	Funding level to state (in dollars)	Potential number of schools
Kentucky	2,003,840	38	343,687	7
Tennessee	2,068,987	39	463,784	9
Virginia	1,832,367	35	569,772	11
West Virginia	1,144,363	22	152,551	3

BEST COPY AVAILABLE

New Publications From AEL

A Guide to Gender Fair Education in Science and Mathematics

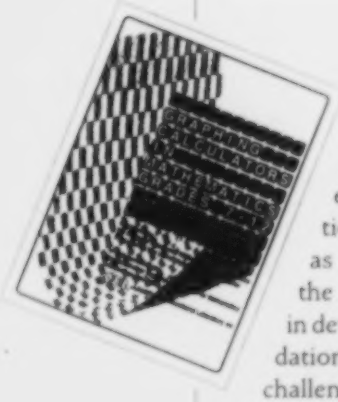
A Guide to Gender Fair Education in Science and Mathematics

We've seen plenty of research that shows how our cultural stereotypes about suitable occupations for girls have kept them out of math and science careers, and now we're finding ways to erase these stereotypes. This resource guide for math and science teachers—by Carol J. Burger and Mary L. Sandy, Virginia Space Grant Consortium—is packed with thought-provoking information and activities, all designed to increase awareness of gender equity issues in the classroom. Teachers may begin by evaluating themselves and their school environment, using assessment exercises from the booklet, a publication of the Eisenhower Regional Consortium for Mathematics and Science Education at AEL. Intervention and teaching strategies are described and actual classroom activities are suggested.

The activities highlighted are examples of programs supported by the U.S. Department of Education and the National Science Foundation, as well as states, counties, and cities. The guide proposes ways to include parents and community organizations in boosting girls' performance and self-image, and provides a bibliography of publications, Internet resources, and organizations that can offer information and assistance.

Softbound, 34 pages, $15 (see the Order Form included with this issue).

Graphing Calculators in Mathematics Grades 7 — 12: A Resource Guide for the Classroom and for Preservice/Inservice Training



"Technology has revolutionized the way mathematics and science are taught, and few innovations . . . have had as much impact as the graphing calculator. Perhaps the only instruments more important in developing sound mathematical foundations are our student's minds. . . . Our challenge as teachers is to harness and exploit the graphing calculator as a tool to enhance learning." (Ron Stewart, in the opening paragraph of the preface.)

During the summer of 1997, 14 mathematics teachers were brought together for a week to produce a series of lessons covering a wide variety of mathematical concepts and topics. The result: a guide for teachers with no experience with graphing calculators, as well as those who have used the instruments since their inception. The lessons emphasize hands-on, problem-solving approaches, with connections to science and the real world.

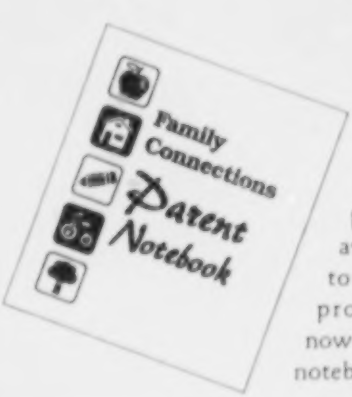
The project is a collaborative effort of the Center of Excellence for Science and Mathematics Education at The University of Tennessee at Martin and the Eisenhower Regional Consortium for Mathematics and Science Education at AEL.

Here's a peek at some of the lesson topics:

- Fun with Function Families—transformation of graphs when parameters of equations are changed
- Starting with Stats—collecting, organizing, and analyzing real-world data
- Constructing Trigonometric Concepts
- Traveling through the Solar System—an exploration of mass vs. weight
- A sick astronaut—measures of central tendency and line of best fit
- Topographic maps and whitewater rivers—rates of change

The guide—developed by the Center and published by the Consortium—also includes activity packets covering basic calculator concepts and calculator-based lab activities. Notebook binder, 250 pages, $39 (available early summer; see the Order Form included with this issue).

Family Connections Parent Notebook



The popular Family Connections learning guides—previously available only to educational programs—are now offered in a notebook for parents. The colorful, user-friendly guides are available in three volumes: *Family Connections 1*, for families of preschool children; *Relaciones Familiares 1*, the Spanish-language version; and *Family Connections 2*, for parents with kindergarten children. Each notebook contains a set of 30 four-page guides, plus tips on using them. Each guide includes one or more read-aloud selections and fun activities for parents and children. $12.95 each ($9.95 without 3-ring binder); see the Order Form included with this issue.

Improving Classroom Assessment: A Toolkit for Professional Developers

Improving Classroom Assessment: A Toolkit for Professional Developers (Toolkit98) is about assessing student achievement. It's about making students partners in the educational enterprise by clearly defining expectations for performance. It's about developing assessments that demand intellectual quality, while honoring student diversity. And, it's about performance-based instruction and the central role of ongoing student assessment to guide and invigorate practice.

Toolkit98 contains 35 activities organized in four sequentially developed modules with instructions for trainers, overhead masters, readings, 48 sample assessments, student work samples, and an assessment evaluation form for use in training. A hands-on document, it's filled with activities designed for workshop presentation.

The primary users of *Toolkit98* will be those responsible for coordinating and facilitating professional development in assessment. The Toolkit is a product of the network of Regional Educational Laboratories and is sponsored by the U.S. Department of Education, Office of Educational Research and Improvement.

To order: Contact Northwest Regional Educational Laboratory, 101 SW Main Street, Suite 500, Portland OR 97204. Phone 503/275-9519. Notebook binder, approximately 1200 pages plus a CD-ROM with overheads, $66.50 (includes UPS).

Summer Professional Development Events

Student Assessment

- **Regional Assessment Institute *(Toolkit98* Training)**
  July 13-15; Atlanta, GA

Those interested in becoming trained as a trainer or adding *Toolkit98* (see story at left) assessment ideas to their classrooms should consider attending the Institute. It begins at 1:00 p.m. Monday, includes a full day Tuesday, and ends at 1:00 p.m. Wednesday. The registration fee ($280) includes a copy of the Toolkit, Tuesday lunch, and all break refreshments. Cosponsored by AEL and the SouthEastern Regional Vision for Education (SERVE), the training welcomes classroom teachers and those responsible for teacher professional development. Presenters are Toolkit developers, all experienced assessment implementors and trainers. Register by June 1; the number of participants will be limited to 100. For more information or to obtain the Institute brochure and registration form, contact Jane Hange (hangej@ael.org).

AEL consultants are trained to use the *Toolkit98* materials and can assist schools and districts in expanding their skills and in designing standards-based authentic assessments. If you are interested in sponsoring a workshop or talking with a consultant, call Jane Hange at 800/624-9120.

Continuous School Improvement

- **Energizing for School Improvement**
  June 10, Gatlinburg, TN

This one-day, preconference workshop, presented in conjunction with the Tennessee Association for School Supervision and Administration, takes place the day before the Association's conference begins. Designed to help attendees explore values and beliefs about leadership for school improvement, the workshop will engage school leaders in dialogue, using a model of sharing leadership for learning. School principals, assistant principals, and other school administrators are invited, with district- and school-level teams preferred. Cost: $50/person; enrollment limited. Con

(continued on p. [illegible]

BEST COPY AVAILABLE

(continued from p. 11)

tact Jim Ward, Executive Director, TASSA, PO Box 24269, Nashville, TN 37202-4269; Fax: 615/963-7203.

- **Inquiry Into Improvement: Focus on Student Work**
  August 10-11, Gatlinburg, TN

Symposium participants will explore student work through three processes—standards, assessment, and instruction—as a way to rethink teaching and learning. Schools can send teams that include parents, students, teachers, and administrators. For more information, contact Shirley Keene at AEL (keenes@ael.org).

Questioning Skills

- **QUILT Training-for-Trainers**
  June 15-20, Lexington, KY

You can help your students become better thinkers with a staff development program called QUILT—Questioning and Understanding to Improve Learning and Thinking. This is a nationally validated program, certified by the U.S. Department of Education's Program Effectiveness Panel as a "program that works." For more information, contact Sandra Orletsky (orletsks@ael.org) or Beth Sattes (sattesb@ael.org).

Curriculum Integration

- **Sixth Annual Institute on Curriculum Integration**
  June 22-26, 1998, Lexington, KY
  July 13-17, 1998, Nashville, TN

The Institute provides school and district teams and curriculum leaders with the tools and resources for planning integrated courses, units, and lessons. It offers a perfect setting for school and district planning in these areas: interdisciplinary curriculum, block scheduling, school-to-work activities, and multiple assessment strategies. For more information, contact Rebecca Burns at AEL (burnsr@ael.org).

The LINK

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction Requested

Telephone
304/347-0400
800/624-9120
304/347-0487 (Fax)
aelinfo@ael.org
http://www.ael.org

Terry L. Eidell,
Executive Director
Carolyn Luzader, Editor

Editorial Board
Diana Bowman
Soleil Gregg
Pat Hammer
Jane Hange
Marian Keyes
Carla McClure
Pat Penn
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL Region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit
U.S. Postage Paid
AEL

```
**AUTO**************5-DIGIT 25325
VELMA MITCHELL                S6 P6
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348
```

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The
Link

Vol. 17, No. 3 • *Fall 1998*

AEL

*Linking the knowledge from research
with the wisdom from practice
to improve teaching and learning*

TECHNOLOGY IN THE CLASSROOM
Why Bring the Internet into the Classroom?, p. 1
Where on the Web?, p. 4
Internet Searching, p. 5

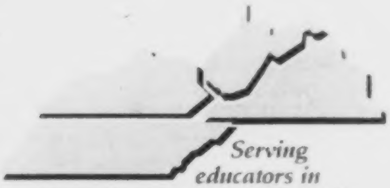
FOCUS ON INSTRUCTION
Toying with Science, p. 6

NEW AEL PRODUCTS
Making Schools Work for Every Child; The ABC's of Tutoring, Order Form/Insert

OFF TO A GOOD START
The Big "R"—Reading, p. 8
Tips for Tutors, p. 8
Are They Ready? An Informal Assessment of Progress, p. 10

COMPREHENSIVE SCHOOL REFORM
Are You Ready to Transform Your School?, p. 11

NEW PUBLICATIONS OF INTEREST
America's Children; Books on Assessment, Evaluation, and Standards; p. 11



Serving educators in Kentucky, Tennessee, Virginia, and West Virginia since 1966

RC021111

Why Bring the Internet into the Classroom?

By Nancy Balow, AEL Staff Writer

That's the question on the lips of many teachers, parents, and administrators these days. According to a recent AEL study, classroom use of the Internet isn't just a glitzy, expensive way to access information or to "put some gee-whiz" into teaching; it has a place in meaningful instruction.

Researchers Patricia Kusimo, Carolyn Carter, and Marian Keyes looked at technology in Tennessee schools during the 1996-97 school year. They selected eight teachers in schools around the state and spent 11 months analyzing field research data. Each teacher was interviewed and his or her classroom observed six to eight times between August 1996 and June 1997. Some students in each class were interviewed as well.

TECHNOLOGY IN THE CLASSROOM

The Internet and Resource Acquisition

Participating teachers commonly used the Internet as a resource provider. In several cases, students were assigned projects for which they were required to search for information on the Internet. Teachers themselves used the Internet to locate teaching materials and strategies.

In one class, the media specialist trained students in research strategies using all available sources—encyclopedias and other reference books, the Internet and World Wide Web, and other electronic sources. The students collected information and recorded their findings.

While this suggests that the Internet merely functions like a book, student and teacher accounts argue that the Internet provides more timely information and allows for more authentic learning tasks than do texts.

A specific example comes from a project on the 1996 election. To give students background information on President Clinton's campaign, the teacher took them to the White House via the Internet. She also found a CBS News site designed to introduce children to the political process, on which students could make suggestions for speeches and provide opinions of the candidates and events on the campaign trail. As the teacher said, "They are bringing in lots of different things and issues, and the kids can get into that process. That is a major advantage because it gives something fresher than we could come up with."

The Internet and Social Interaction

A group of special education students exchanged information with students in Hawaii, a process they found intriguing because of differences in climate, language, and culture. As they shared information about their interests and classroom projects, they discovered that they needed to learn more about their own community to tell others about it.

Simply using the Internet to talk to pen pals fostered a positive attitude toward learning. It helped students make connections with the world, learn through extended information networks, and interact with other communities.

(continued on page 2)

The Internet and Intellectual Inquiry

Information in textbooks is perforce limited to and directed toward specific curriculum objectives that often encourage memorization and recitation over reflection and analysis. Information available on the Internet can be richer and more eclectic, inviting students to relate it to their own lives, stimulating questions outside the textbook, and providing answers to questions unanticipated and unresearched by the teacher or textbook author.

While the Internet can create more "teachable moments," it also calls for different instructional strategies, greater flexibility, and more willingness to follow student interest and facilitate student exploration. The following example illustrates such teaching.

A sixth-grade teacher uses the Internet to teach students—including special needs students—to write and appreciate poems. Via e-mail she established relationships with four poets: one in Arizona, one in Virginia, the curator of "The Poetry Garden" WWW site, and a retired teacher and former vice president of Houghton Mifflin Publishing Company. In this class, students write poetry that is read and critiqued by professional poets. And the poets, in turn, ask the students to critique their work.

The extended learning environment provided by the Internet allows for collaborations such as this, which provide meaning to student work. Because their work reaches a real audience, students are motivated to treat their own and one another's work with respect. The teacher's description of student responses to a poem written by one of the professional poets follows.

Student and teacher accounts argue that the Internet provides more timely information and allows for more authentic learning tasks than do texts.

> They fell on it like candy. As I asked each child to read a verse, there was rapt attention, and the readers were decoding. In the sixth grade, decoding usually means structural analysis, diacritical markings, and things which aren't meaningful to students. If they have reading problems and experience a lot of failure in the lower grades [then] they don't want to do any sort of direct skill practice. In reading the poetry written by their adult friends and their classmates, they work on comprehension and decoding because they want to understand what they're reading. Also, vocabulary development is rapid as they write their own poems and as they read each other's poems.

As students use the Internet for intellectual inquiry, teachers find their roles changing. One teacher commented that once students were allowed to explore on their own, they tended to interact with each other more, and they helped each other solve problems. Furthermore, she noted "very few behavior problems. They were all involved."

Uses of the Internet in the Classroom

- accessing timely information
- providing authentic learning tasks
- making connections with the material and social worlds
- learning through extended information networks
- interacting with local communities
- improving students' language and writing skills
- energizing students' learning
- encouraging exploration
- stimulating inquiry

Barriers to Using the Internet

Although teachers had expected to have adequate Internet access during the study, in practice, access varied among the schools according to the number of Internet accounts per classroom, the Internet provider, available search engines, and other factors. Long lag times, shutdowns, or freeze-ups of systems sometimes disrupted lesson plans.

One administrator said Internet use was just a curiosity for many teachers in his school "because they do not have personal access, nor training, nor involvement with the Internet." A teacher in the school saw it differently:

> In some ways we get a lot of support and in others we don't because so few of the administrators know how to use computers. They don't see what you can do with the kids. They just don't budget for that. Right now they think that if you send somebody to a conference to learn Windows 95 and spend $300 on it, that's a great thing, when most of the stuff you can pick up in a $15 book. They will throw money on certain things and other things they won't.

Because use of the Internet as an instructional tool seems to be changing the dynamics of the classroom, teachers will need to explore new instructional models and learn to add the roles of facilitator and coach to their repertoire to assist students in active learning. Specific areas of training relating to the Internet will need to include classroom management, grouping of students, community involvement, development of authentic tasks, and assessment of learning.

Clearly, using the Internet in the classroom does not guarantee good curriculum or teaching practices. Our study does suggest that teachers on the forefront of Internet-

(continued on page 3)

BEST COPY AVAILABLE

based instruction provide their students with learning experiences that do not happen (at least in the same way and to the same extent) when the Internet is not used. With skillful use, the Internet can become a valuable tool to facilitate meaningful instruction.

—From the AERA paper titled *Internet: Act 1—Scenes from Tennessee Classrooms.*

More from Tennessee Classrooms

In a related project, AEL researchers located Internet sites with lesson plans relevant to the Tennessee curriculum frameworks and assembled them on Web pages with links keyed to the frameworks. Pilot tests during spring 1998 resulted in a collection of Web sites with lesson plans addressing the Tennessee standards in language arts, mathematics, health, and science. Go to http://www.ael.org/rel/state/tn/index.htm.

TECHNOLOGY IN THE CLASSROOM

A Print Guide to the Web

If you want a step-by-step print guide to using the Internet, you might appreciate this book from award-winning Canadian teacher Marjan Glavac. *The Busy Educator's Guide to the World Wide Web* provides ideas, tips, and sites to help you get on-line. It also includes listings of on-line resources.

Glavac recommends two "must-see" sites for every teacher and parent. Global SchoolNet Foundation at http://www.gsn.org offers classroom projects, supporting lesson plans, and a moderator, as well as mailing lists, archives, and contests to motivate both students and teachers.

Digital Education Network at http://www.actden.com delivers reading, writing, and math lessons for grades 7-12; shows students and teachers how to create digital art; presents an introduction to using the Internet; and more.

The 179-page book, published by NIMA Systems, costs $14.95 and can be ordered by phone at 519-473-5567, fax 519-471-0318, or on the Web at http://www.glavac.com or http://www.amazon.com.

DOING IT WELL

The Blue Ribbon Award Schools

In 1982 the U.S. Department of Education began the Elementary and Secondary School Recognition Program to identify and bring attention to schools with innovative programs that produce successful results. Each Blue Ribbon School receives a presidential citation and a Flag of Excellence signifying its exemplary status.

Winning schools have demonstrated the professionalism of their teachers, commitment to their students, and a strong record of progress. They serve as model programs for other schools.

AEL recognizes the Blue Ribbon Schools in our Region on our Web site, and we help them create Web pages if they don't already have them.

Meet our newest Blue Ribbon Schools at http://www.ael.org/rel/schlserv/ribbon.

The National Awards Program for Model Professional Development

Because research shows that professional development plays an essential role in successful education reform, the U.S. Department of Education now recognizes schools and districts that provide high-quality training to their educators. AEL and the nation's other regional educational laboratories work with department staff to review applications, make site visits, and select award winners.

If your school has committed to a professional development program that meets the principles listed below, you may apply for the 1998 awards. Get application information from Jane Hange here at AEL (hangej@ael.org) or go to the education department Web site at http://www.ed.gov/inits/teachers/teach.html.

High-Quality Professional Development

- focuses on teachers as central to student learning, yet includes all other members of the school community;
- focuses on individual, collegial, and organizational improvement;
- respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community;
- reflects best available research and practice in teaching, learning, and leadership;
- enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards;
- promotes continuous inquiry and improvement embedded in the daily life of schools;
- is planned collaboratively by those who will participate in and facilitate that development;
- requires substantial time and other resources;
- is driven by a coherent long-term plan;
- is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning; and this assessment guides subsequent professional development efforts. (U.S. Department of Education, 1996)

BEST COPY AVAILABLE

TECHNOLOGY IN THE CLASSROOM

Where on the Web?

You've heard that the Internet, especially the World Wide Web, is the place to go for information. Problem is, you also get information overload. If you're ready to yell for help, we can tell you there is some available—on the Internet, of course!

Don't quite feel comfortable with your surfing skills? Several on-line sites offer courses in using the Internet. Searching the Net may seem difficult to the novice, but just a few basics will help you sort search engines from directories and hone your search techniques to librarian level. *(See box on page 5.)*

How about lesson plans? And sites that will really motivate students? No problem, you can pick and choose from many good ones in nearly every content area imaginable.

No lifetime is long enough for any one person to screen every site on the Web, so be grateful for the folks, both paid and unpaid, who have compiled directories and listings of sites by topics. In the interest of more learning and more fun in every classroom, we offer a few picks of our own, and some ideas on where to get more.

How to Use the Internet

Come to AEL's Web site for our **Internet Primer** at http://www.ael.org/rtec.

National Semiconductor's Global Connections Online site offers a free course and certificate (you can earn the rank of "Internet Guru") at http://www.nsglobalonline.com.

To learn about the Internet and many software packages and programming techniques, enroll in **ZD University**. ZDU offers CEUs, and "tuition" is just $4.95 per month for as many classes as you wish to take at http://www.zdu.com.

Resource Listings

The U.S. Department of Education, in collaboration with many other federal agencies, has a new site called **FREE (Federal Resources for Educational Excellence)**. It offers "kid pages" from each participating agency, covering such topics as aeronautics, financial aid, recycling, energy, and the CIA. http://www.ed.gov/free

The **American Library Association** has compiled a listing of recommended sites for kids. Selected by nine of the nation's top librarians, the listing contains over 700 sites organized by interest area. http://www.ala.org/parentspage/greatsites

Education-related sites:

- **PBS LiteracyLink**, peer-reviewed instructional sites http://www.pbs.org/literacy
- **Schrock's Guide** http://www.capecod.net/schrockguide
- **Connections+** http://www.mcrel.org/connect/plus
- **LD Online** has info about learning disabilities www.ldonline.org
- **"eSchoolNews"** www.eschoolnews.com
- **WebTeacher** http://www.webteacher.org
- **Classroom Connect** http://www.classroom.net

The **Web Magazine** offers many good links in its Site Review section. Current listings and archives available, with search feature. The Science button connects to some interesting sites, but be sure to preview sites under other buttons, such as Weird. http://www.webmagazine.com

The **Amazing Picture Machine**: This index to graphical resources helps students and teachers find pictures and maps from around the world. Also includes lesson ideas. http://www.ncrtec.org/picture.htm

Individual Sites *(in alphabetical order)*

The Albatross Project: An up-close look at albatrosses and a chance to participate in a scientific study. http://www.wfu.edu/albatross

Amazon Adventure: See the river and rainforest, take virtual tours—including one along the treetop walkway built by the Amazon Center of Environmental Education and Research Foundation. http://168.216.238.53/amazon/index.htm

Bioluminescent Bay: This bay off the coast of Puerto Rico has a very special glow. http://www.biobay.com

The Cyberspace Museum of Natural History and Exploration Technology: Hear how a Parasaurolophus (a kind of dinosaur) might have sounded. http://www.cyberspacemuseum.com

Eisenhower National Clearinghouse sites offer math and science information of many kinds. To focus on the results of the Third International Mathematics and Science Study, go to http://timss.enc.org.

The Invention Dimension: The name says it—lots of inventions, new and old. http://web.mit.edu/invent/www/invention_dimension.html

Star Date: Backyard stargazing tips, a sky almanac, a magazine, and teacher guides. http://stardate.utexas.edu

The Why Files: Created by the National Institute for Science Education, this magazine focuses on science, math, engineering, and technology. http://whyfiles.news.wisc.edu

Talk to Us

The Link now has its own e-mail address. Tell us what you like and what you'd like to read. Send comments and/or ideas to link@ael.org.

Internet Searching

By Fernando Ibanez, AEL Technology Specialist

What's wrong with this statement? *Yahoo! is the most popular search engine on the World Wide Web.*

What's wrong is that Yahoo! is not a *search engine*—it's a *directory*. There's a difference. If you have ever felt frustrated when searching for information on the Web, read on to learn how knowing the difference can make both tools work for you.

A directory is a categorized collection of links to Web pages. A Web page is included in a particular category because someone has looked at it and decided that it belongs there. For example, AEL's Web page could be listed in three categories: Education, Businesses-Nonprofit, and State-WV-Charleston-Business. Computers are not smart enough to figure this out, so directories rely on webmasters, users, and other people to let them know how a page should be categorized.

Search engines, on the other hand, use computers to do the work. A search engine program—called a robot or a spider—goes from Web page to Web page, cataloging each word from each page into its database. If the robot finds links to other pages, it follows those links and continues to catalog each word, each page, in a very computeresque way.

When you ask a search engine to search for a word or string of words, it compares what you've typed to its own database. Then it produces a list of Web pages that contain your word(s). If you try the same search in a different search engine, you're likely to get different results because each search engine searches its own database—not the entire Web. Only the pages that its own robot or spider found are in its database. Using two or three search engines increases your chances of finding the information you seek.

Directories yield less specific results than search engines because they catalog Web pages according to topic instead of indexing each individual word within each Web page. They respond to your query by giving you a list of predetermined categories. If you already know what you're looking for, a directory is not the tool for the job. Directories are better at letting you know "what is out there" related to a given topic. To find specifics, you'll want to use a search engine.

To get information on a broad topic (the Wild West, for instance), start with a directory. If you want additional information on a more narrow subtopic (Billy the Kid), use a search engine. There you'll get a list of pages that have in their text the words *Billy, the,* and/or *Kid*. If no pages contain those words, the search engine will tell you so—clearly, precisely, and pointedly.

There are some tricks you should know. Let's say I am looking for facts about red pythons. I type *red pythons* in the search engine's "search box"—and get 500,000 hits! Why so many? Because the search engine is giving me pages that contain the words *red* and *python*, but not necessarily within the same phrase. *Red* could be at the top and *python* at the bottom of a 50-page document, but since they are both on the same page, the search engine "thinks" it has a hit. The search engine also lists pages that contain only the word *red* or only the word *python*. These are lower on the list, but they are still there. To initiate a new, more narrow search, I can put a plus sign in front of each word, like this: +red +python. This forces the search engine to give me only pages that have the words *red* and *python*. The "hit list" is down to 22,000. I'm still getting a lot of pages that have the words in different places, so I change my search to *"red python"*. Enclosing the words in quote marks forces the search engine to give me only pages that contain the words *red python*—together, and in order. The search results drop down to 11 hits, a more manageable number.

The plus sign and the quote marks are the most common devices you can use to narrow your searches. You can also use the minus sign, which forces the search engine to ignore pages that contain the word following the sign. When I was looking for facts about red pythons, I noticed a lot of Monty Python pages in my search results. I could have typed *+red +python -monty* to force the search engine not to return pages that have the word *monty* in them.

The last thing to remember is that each search engine and directory works a bit differently from the others. After you figure out which ones you like, read their help sections for additional tips on conducting searches.

Try these popular search tools:

Directories

Yahoo!: http://www.yahoo.com
Magellan: http://www.mckinley.com
Infomine Scholarly Information: http://lib-www.ucr.edu/

Search Engines

HotBot: http://www.hotbot.com
Altavista: http://www.altavista.digital.com
Lycos: http://www.lycos.com

BEST COPY AVAILABLE

Cameron McLaughlin finds the nails balancing act fascinating

FOCUS ON INSTRUCTION

Toying with Science

Enriching the physics curriculum

By Donna A. Conner, Roanoke County Schools Resource Teacher

I got the idea for this course about 15 years ago at a summer meeting of the American Association of Physics Teachers. I attended a session presented by James Watson, physics and astronomy professor at Ball State University, and Nancy Watson, a middle school science teacher at Ball State's Burris Laboratory School. Jim and Nancy showed how to use simple, inexpensive toys to present physics concepts and how to record and analyze laboratory data.

I consider the Watsons to be pioneers of today's use of everyday objects to teach real-world concepts in an exciting and relevant manner. They still offer their summer program, which teachers from all over the country attend.

When I returned from that session, I arranged to offer my own summer enrichment course for middle school gifted students in Roanoke County Schools. Participation in the program is voluntary; the students pay tuition and there are no formal evaluations in the form of grades. Despite competition from sports camps, family vacations, and other recreational activities, The Physics of Toys has been a popular course. One student became so involved that he registered and paid to attend a second time. He explained that he "never knew that learning science could be so much fun!"

Combining scientific investigation with children's natural tendency to play is a powerful instructional strategy.

Sue Bostic, Elementary Gifted Resource Teacher, Roanoke County

Here's part of the course description:

> You will explore the scientific concepts that are used in various toys. Several areas of physics will be included—mechanics, optics, sound, center of gravity, and energy.
>
> You will learn science by "playing" (scientists call it "experimenting"). As you play, you will develop your skills of observation and deduction and will discover the correlation between the workings of the toys and the principles that apply to everyday life.
>
> Once you understand the basic physics, you will use the toys to gather data in an experimental setting. With this data, you will confirm the laws of physics through graphical analysis and other computerized techniques.
>
> You may keep your toys to do further experimentation, and you may bring in your own toys for comparisons and exploration of other physics concepts.
>
> Families are invited to attend a Physics of Toys show on the last day of class. Students will demonstrate and explain what they learned about one specific topic/toy.

Featuring articles about teachers in the four AEL states—this issue, Virginia

Topics and activities vary slightly from year to year, depending on the availability of a specific toy or the discovery of a new toy. With the exception of special, one-of-a-kind demonstration toys, the toys we use in the class are given to the students to keep. We also make some toys out of paper, straws, and other simple materials.

I wanted to expand my program into the regular classroom, so last year I submitted grant requests for $500 to the Virginia Association of Science Teachers (VAST) and for $400 to the American Association of Physics Teachers (AAPT) to create the Toy Box. This project will provide Roanoke County physical science teachers from five schools with the training and materials to play with physics in their classrooms. A team of three physical science teachers and I will provide in-service training and assistance.

Each school will enhance its curriculum by providing motivating challenges through hands-on science experiences and the use of technology—computer spreadsheet programs to analyze and graph the data taken with the toys.

A Toy Box includes demonstration toys, a classroom set of toys for experiments, and a series of differentiated physical science lesson plans (demonstrations, experiments, reference list of AV materials available) correlated to the Roanoke County science curriculum and the Virginia Standards of Learning for science and technology.

Use this form to order materials from AEL.
Please check (✔) your selections and complete the shipping information on p. 3.

Be sure to include payment for priced items.

We now accept VISA and MasterCard.

AEL Order Form

☞ Pull out ✍ Fill out ✉ Mail back

Please add my friend or colleague to your mailing list: (please print legibly)

Name: ______

Title: ______

Organization: ______

Address: ______

______

Name: ______

Title: ______

Organization: ______

Address: ______

______

☐ Change of address; please correct your records.

☐ I am not on your mailing list; please add my name.

Postage
Required

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

BEST COPY AVAILABLE

Resources Available from AEL

Some documents can be downloaded from our Web site: http://www.ael.org

★___**A Guide to Gender Fair Education in Science and Mathematics** ***(1998)***

This publication presents information gathered from the research and programs developed by hundreds of teachers and researchers in the field of educational equity. The activities highlighted are examples of programs supported by the U.S. Department of Education and National Science Foundation, as well as states, counties, and cities. It includes an annotated bibliography of programs for girls in grades K-12. $15; 40 pp.

___**EdTalk: What We Know about Reading Teaching and Learning (1996)**

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited-English-proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5; 70 pp.

★___**Expanding the Vision: New Roles for Educational Service Agencies (1998)**

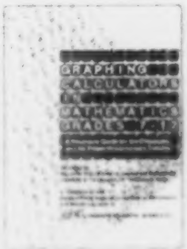
EXPANDING
VISION

Educational service agencies can serve an essential role today to rural districts as they face the challenges of systemic school reform, according to E. Robert Stephens in this book from AEL's Rural Center. Stephens details the forces that are shaping current expectations of rural public education and lays the groundwork for considering future possibilities for agency programs and services. $15; 172 pp.

___**Family Connections Parent Notebook**

The *Family Connections* learning guides—previously available only to educational programs—are now offered in a notebook for parents. The colorful, user-friendly learning guides are available in three volumes: *Family Connections 1* is for families of preschool children, *Relaciones Familiares 1* is the Spanish-language version, and *Family Connections 2* is for parents with kindergarten children. Each notebook contains a set of 30 four-page guides, plus tips for using them. Each guide includes a **message** to parents, one or more **read-aloud** selections, and fun **activities** for parents and children. $12.95 each ($9.95 without 3-ring binder).

★___**Graphing Calculators in Mathematics Grades 7—12: A Resource Guide for the Classroom and for Preservice/Inservice Training (1998)**



This resource guide—developed by the Center of Excellence for Science and Mathematics Education (CESME) and published by the Eisenhower Regional Consortium for Mathematics and Science Education at AEL—offers a series of lessons covering a wide variety of mathematical concepts and topics. Planned for teachers with no experience with graphing calculators and for those who have used the instruments since their inception, these lessons emphasize hands-on, problem-solving approaches, with connections to science and the real world. $39; 250 pp.

___**Implementing Schoolwide Projects (1994)**

This idea book from the U.S. Department of Education paves the way for creating programs under Title I of the Elementary and Secondary Education Act that are grounded in lessons from successful schoolwide projects. It describes how innovative educators leveraged federal funds to reform schools that serve some of the nation's most disadvantaged children. A resource for policy makers and practitioners alike, the book also discusses research that supports whole school change, highlighting key components of successful programs and obstacles often faced during reform efforts. $7.50; 112 pp.

★___**Making Schools Work for Every Child**

(CD-ROM, 1998)—This collection of math and science materials helps teachers and administrators acknowledge children's diverse strengths, identify inequities, and improve the ways educators serve students with varied needs. (See p. 4 of the Order Form for more details.) **Free**

___**1997 Native Education Directory: Organizations and Resources**

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover (ISBN 1-880785-17-X)

___**Planning Schools to Serve Rural Communities (1998)**

This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas. Free; 8 pp.

★ Recently published

___ Preventing Antisocial Behavior in Disabled and At-risk Students (1996)
This issue of *Policy Briefs* focuses especially on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2; 12 pp.

★___Recruiting and Training Volunteer Tutors of Emergent and Beginning Readers in the Primary Grades (1998)
This manual identifies characteristics of effective tutoring programs, suggests ways to recruit tutors and select the students they'll work with, presents a model for conducting tutor training sessions, and provides activities tutors can use to help emergent and beginning readers. Colorful activity cards guide tutors through reading, comprehension, word study, and writing activities. In addition, the activities are demonstrated on the trainer's video, which is divided into two 45-minute sessions. (See p. 4 of the Order Form for more details.)

___ Trainer's package (includes 90-minute video, 64-page manual, and 15 activity cards). $225. Product number D98-009-L173.

___ Tutor's package (includes 64-page manual and 15 activity cards). $30. Product number D98-010-L173.

___ Rural Education Directory: Organizations and Resources (1996)
This directory includes information about national organizations, federal government programs, state organizations, state department of education rural program coordinators, state data centers, and rural journals. $6; 65 pp.

★___School-Based Programs to Promote Safety and Civility (1998)
More and more, schools are adopting various antiviolence programs that, until recently, hadn't been studied for effectiveness. Now, several rigorous studies provide information to help schools and policy makers select methods that may work for them. This issue of *Policy Briefs* looks at these studies and reviews the programs found to be most effective. The publication focuses on more than 20 primary and secondary level programs, all of which get a thumbs-up from researchers. Complete contact information is provided for each program. $2; 12 pp.

★___Schools for Disruptive Students: A Questionable Alternative? (1998)
Recent safe-schools legislation and commitments to provide orderly, safe learning environments have prompted states to create alternative schools for disruptive students. This issue of *Policy Briefs* reviews the research on alternative schools and suggests indicators policy makers can monitor to judge the effectiveness of alternative school legislation. $2; 8 pp.

AEL Information (free)

- ☐ AEL Products & Publications Catalog
- ☐ Sample *Family Connections 1* and 2—take-home learning guides for young children
- ☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons
- ☐ QUEST—a process to help schools along the improvement journey
- ☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

Information Search Packages

These information packages contain a variety of current resources and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources.

___ Block scheduling (1996) $15; 142 pp.

___ Promoting safe schools (1996) $15; 178 pp.

★___Technology in Education (1998) $15; 136 pp.

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free.**

___ Inclusion (1996)

___ Respectful Learning Environments (1997)

Shipping information (please print)

Name ______________________________

Title ______________________________

Organization ______________________________

Address ______________________________

____

Daytime phone (________) __________-__________
(in case we have a question about your order)

Method of payment:

___ Check (drawn on a U.S. bank)

___ Money Order

___ Institutional purchase order (#__________________)

___ Visa ___ MasterCard

______________________________ Exp. date ______

Cardholder name ______________________________

Signature ______________________________

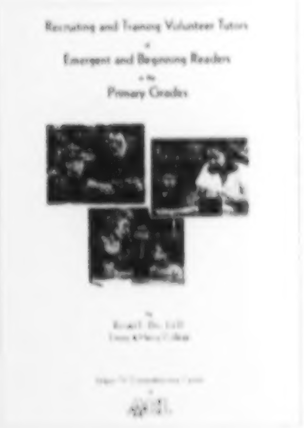
NEW AEL PRODUCTS

The ABC's of Tutoring: Help for Reading Coordinators and Tutors

"One of my second graders needs additional tutoring in reading, but my only volunteer has had no training or experience in how to teach literacy skills."

"The turnover rate for volunteers is high, but I could retain more tutors if I had the time and resources to help them become confident and effective."

If these concerns sound familiar, take a look at *Recruiting and Training Volunteer Tutors of Emergent and Beginning Readers in the Primary Grades*. This manual identifies characteristics of effective tutoring programs, suggests ways to recruit tutors and select the students they'll work with, presents a model for conducting tutor training sessions, and provides activities tutors can use to help emergent and beginning readers. Every effort has been made to present a model based on pedagogical principles supported by sound research.



Recruiting and Training Volunteer Tutors
of
Emergent and Beginning Readers
in the
Primary Grades

Recruiting and Training Volunteer Tutors is not offered as a remediation program. It focuses on helping children in the early grades (generally, K-3) who lack the literacy skills to be successful. Research shows that these children are more likely to drop out of school early if they don't get the help they need.

Tutors will especially appreciate the explanations of how children learn to read. The manual helps tutors distinguish among *emergent readers* (who lack readiness skills), *beginning readers* (who have knowledge of the alphabetic principle, a concept of word, and phonemic awareness), and *functional readers* (who are able to read silently and independently with understanding). Colorful activity cards guide tutors through reading, comprehension, word study, and writing activities. In addition, the activities are demonstrated on the trainer's video, *The Reading Tutor's Helper*, which is divided into two 45-minute sessions.

About the author

Ronald E. Diss, Ed.D., is associate professor of reading education and director of educational outreach at Emory & Henry College in southwestern Virginia. He has been a principal and a classroom teacher, has taught graduate courses in reading education, and has developed and managed a variety of reading tutoring programs.

Making Schools Work for Every Child

This collection of math and science materials helps teachers and administrators acknowledge children's diverse strengths, identify inequities, and improve the ways educators serve students with varied needs.

Making Schools Work for Every Child is a resource for educators concerned about creating equitable classroom conditions in which every child can succeed in school.

It includes

- activities, journal articles, and essays that will help users gain insights into their cultural assumptions
- materials to strengthen teachers', guidance counselors', and administrators' abilities to help children from diverse backgrounds
- methods to examine the impact of school, district, state, and federal policies on every child's opportunity to learn
- strategies for forming learning communities concerned with how best to serve a diverse student population

AEL contributed a number of success stories from our innovative Voices project. Sponsored by the National Science Foundation, Voices was a three-year project to help girls do well and feel confident in science, math, and technology.

The CD includes photos, moving images, and quotes from Voices participants.

This CD-ROM was developed in a collaborative effort between the Eisenhower National Clearinghouse for Mathematics and Science Education (ENC) and the Equity Task Force of the National Network of Eisenhower Regional Consortia (NNERC).

The ENC also maintains a Web site with the CD's content: http://equity.enc.org.

See inside for ordering information.

BEST COPY AVAILABLE

I liked balancing 12 nails on the head of one nail.

Lindsey Wray, Student

I will visit each school to help implement and evaluate the class by observing as students do the experiments and analyze their data. Students and teachers will also evaluate the units and make suggestions for future modifications.

In some units (motion/energy), students will use a computer spreadsheet program such as Number Cruncher, ClarisWorks, or Vernier's Graphical Analysis, thus expanding their knowledge of technology. The students will enter data and set up formulas in a spreadsheet or database, then analyze the data and create graphs or charts to represent it. Conclusions will be made concerning the data in terms of the students' hypotheses.

We expect the students to not only enjoy studying these physical concepts using toys, but to enhance their technological literacy. More important, we hope to keep middle school students interested in science. Many bright students who have special talents in science are turned off at an early age by traditional, non-challenging instruction. We can turn on students when we use The Physics of Toys and other innovative approaches to teaching.

These young people become intellectual scientific consumers and teachers for parents, siblings, and others.

Garland Life, Senior Director of Instruction for Roanoke County Schools

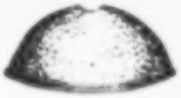
To learn more about toying with science, call Donna Conner at 540-562-3732 or e-mail dconner@rcs.k12.va.us

Some concepts and the toys to demonstrate them

Waves: straws (taped together to make a wave machine), slinkies

Sound: straws, bendable snake flute (corrugated plastic tube with a mouthpiece), twirl-a-tune tubes, strings, and talking strips (thin plastic strips with grooves on one side)

Optics: kaleidoscopes (homemade, marble), prisms, mirrors (plane and curved), zoetrope (handmade moving picture machine that demonstrates stroboscopic motion)

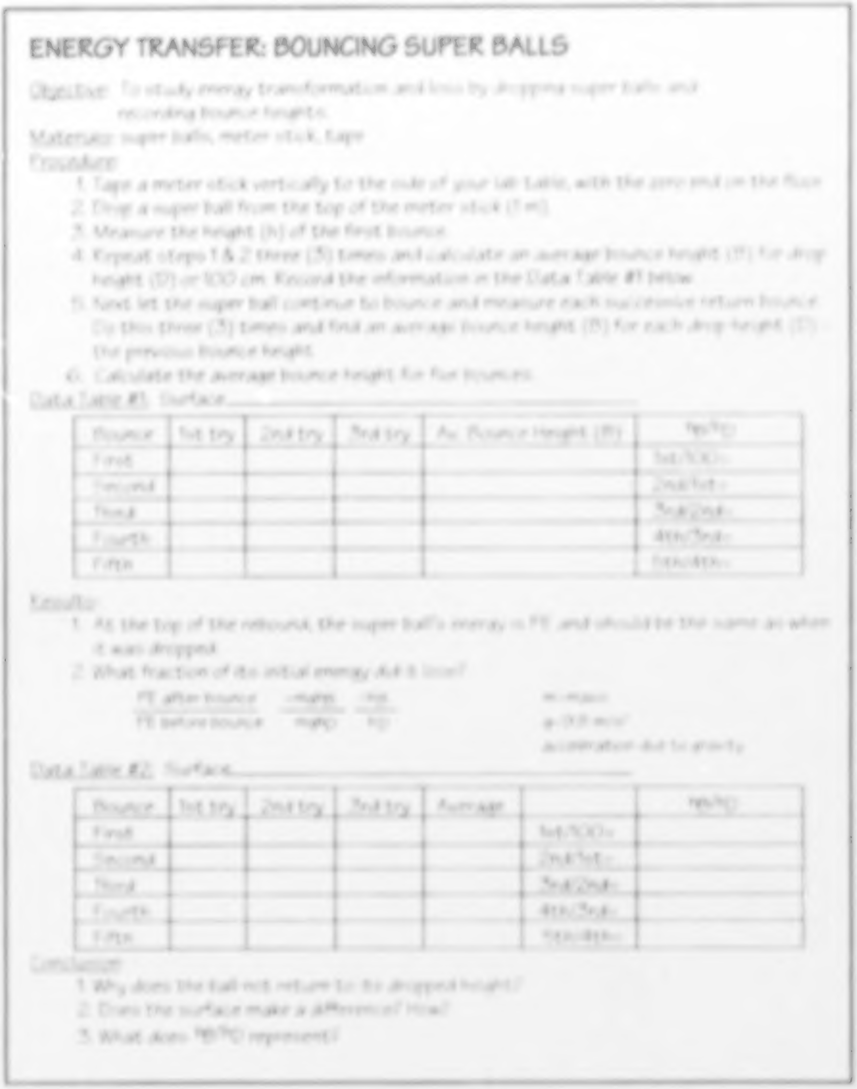


Motion (Straight Line): pull-back cars, walkers (wind-up figures), homemade balloon-powered car

Motion (Curved): hot wheels cars with track, tops (regular, tippey, diffraction grating, magnetic snake—top with a magnet on its end)

Energy: pull-back cars, walkers, poppers (1/3 of a small hollow ball that bounces), super balls

Center of Gravity: many homemade examples, belt hooks, clothes pins, balancing birds or balancing clowns



ENERGY TRANSFER: BOUNCING SUPER BALLS

Objective: To study energy transformation and loss by dropping super balls and recording bounce heights.

Materials: super balls, meter stick, tape

Procedure:

1. Tape a meter stick vertically to the side of your lab table, with the zero end on the floor.
2. Drop a super ball from the top of the meter stick (1 m).
3. Measure the height (h) of the first bounce.
4. Repeat steps 1 & 2 three (3) times and calculate an average bounce height (B) for drop height (D) or 100 cm. Record the information in the Data Table #1 below.
5. Next let the super ball continue to bounce and measure each successive return bounce. Do this three (3) times and find an average bounce height (B) for each drop height (D) = the previous bounce height.
6. Calculate the average bounce height for five bounces.

Data Table #1: Surface____________________

Bounce	1st try	2nd try	3rd try	Av. Bounce Height (B)	h_B/h_D
First					1st/100=
Second					2nd/1st=
Third					3rd/2nd=
Fourth					4th/3rd=
Fifth					5th/4th=

Results:

1. At the top of the rebound, the super ball's energy is PE and should be the same as when it was dropped.
2. What fraction of its initial energy did it lose?

$$\frac{\text{PE after bounce}}{\text{PE before bounce}} = \frac{mgh_B}{mgh_D} = \frac{h_B}{h_D}$$

m = mass
g = 9.8 m/s²
acceleration due to gravity

Data Table #2: Surface____________________

Bounce	1st try	2nd try	3rd try	Average		h_B/h_D
First					1st/100=	
Second					2nd/1st=	
Third					3rd/2nd=	
Fourth					4th/3rd=	
Fifth					5th/4th=	

Conclusion:

1. Why does the ball not return to its dropped height?
2. Does the surface make a difference? How?
3. What does h_B/h_D represent?

BEST COPY AVAILABLE

OFF TO A GOOD START

The Big "R" — Reading

Reading lays the foundation for all other learning. Too many of our children struggle through school because they have not mastered basic reading skills. Research shows that if students cannot read well by the end of third grade, their chances for success become significantly lower. In 1994, 40% of America's fourth graders failed to attain the basic level of reading and 70% of children fell below the proficient level on the National Assessment of Educational Progress.

Fortunately, we can address this problem, and President Clinton's America Reads Challenge has developed several strategies that should make a difference. AEL and the nation's other regional educational labs are working with the U.S. Department of Education to supplement classroom reading instruction, strengthen parent involvement and help children become ready to learn when they enter school, bring best practices into classrooms, and support research and evaluation.

In the coming year, you'll hear a lot about the first of these initiatives as tutors across the country are trained to provide high-quality help to young readers. Study after study finds that sustained individualized attention and tutoring after school and over the summer can help to raise reading levels. Volunteers, many of them college students, will add tutoring to their busy schedules in the coming semesters. (See order form/insert for information on AEL training materials available to your organization.)

Tips for Tutors

Adapted from a presentation by AEL's Soleil Gregg at the July 31-August 1 America Reads Conference in Nashville.

Why good reading instruction is important:

- Up to 15% of children with reading problems drop out of school; only 2% finish college.
- Approximately 50% of teens and young adults with criminal records do not read well.
- About 50% of young people with substance abuse problems do not read well.
- About 90% to 95% of reading problems can be corrected with early intervention and appropriate instruction.

General advice for reading tutors:

- When it comes to reading, [directed] practice makes perfect.
- Never force a child to read orally in front of peers.
- Choose reading material on subjects of interest to the child.
- Speak distinctly and expressively when reading, clearly enunciating words and sounds. Inflect your voice in accordance with punctuation.

AmericaReads
CHALLENGE

- Help make reading enjoyable. Children with reading difficulties usually do not like to read and do not get sufficient practice to become fluent.

Strategies for Tutoring Students with Disabilities

A cautionary note:

- Disabilities should be diagnosed and treated by professionals.
- Discuss any questions and concerns about tutoring a child with disabilities with a teacher or program coordinator.
- Strategies presented here are meant to enhance the tutoring process, not to replace or substitute for a teacher's specific recommendations.

Most common disabilities that affect learning to read:

Dyslexia. Dyslexia affects approximately 20% of school children. To read, children must translate letters on a page into the sounds of words (i.e., develop phonological awareness). In dyslexics an inefficient module in the brain is believed to interfere with letter-sound processing, so students exhibit difficulty decoding words. Research points to additional deficits in processing visual motion and rapid changes in sound. Children with dyslexia need direct instruction in letter-sound relationships using a curriculum that employs multisensory techniques.

Speech and Language Disorders. This general term refers to problems with communication, including reception (understanding), expression (speaking), and articulation (forming sounds) disorders. These disorders affect approximately 10% of the school population and account for 25% of children in special education. A child with a speech or language disorder may use baby talk past an appropriate age, may stutter, or may have trouble using or understanding words in the context of a conversation or assignment. Speech and language disorders often accompany learning disabilities such as dyslexia.

Processing Deficits. Processing disorders interfere with information taken in through the senses. The most common types affecting school tasks are visual, auditory, and motor deficits. Though considered learning disabilities, these deficits overlap with speech and language disorders and specific learning disabilities like dyslexia. Students with processing deficits may experience problems with auditory or visual sequencing and memory (e.g., reversing letters, losing the place while reading, and forgetting instructions).

ADHD. Attention Deficit/Hyperactivity Disorder (ADHD) is characterized by age-inappropriate levels of hyperactivity, inattention, and impulsivity. It affects 3% to 5% of the population and often occurs with other conditions. Researchers believe that symptoms result from underlying impairment in systems used to regulate and control behavior. Children with ADHD may pay attention to the novel and stimulating but have trouble staying seated or keeping focused. Attention problems may not be apparent in one-on-one sessions; however, for more severe cases, a simple reward for appropriate behavior at the end of each session can help.

Developmental Disabilities (Mental Retardation). Mental retardation is diagnosed by an IQ below 70-75 and limitations in daily living. It has a variety of causes, including genetics, prenatal problems, low birth weight and premature birth, disease, and poverty or cultural deprivation. It affects approximately 3% of the population; of this group, 87% are mildly affected. Children with mild mental retardation may just seem a little slower than others in learning new information and skills.

Tutoring emergent and beginning readers with disabilities:

- Most young children experiencing reading difficulty need to be directly taught letter-sound relationships (i.e., how the 26 letters of the alphabet represent the 44 sounds or phonemes that make up English words). When introducing new words or sounding out words in text, highlight each letter of the word as it is sounded or cover surrounding letters to focus on the one being sounded.
- Choose books with rhyme, repetition, and a controlled vocabulary (a limited but expanding repertoire of phonetically based words (e.g., cat, sit, hot) and critical sight words (e.g., here, there, of, to).
- For emergent readers, read and teach rhyming songs and poems (e.g., Mother Goose nursery rhymes such as "Mary Had a Little Lamb"). Teach the child to clap while singing or saying the syllables of the rhyme. If he or she does not already know the alphabet song, teach the child to sing it while pointing to the letters.
- Reinforce knowledge of letter shapes by having the child write them, trace them, or place magnetic letters in order while saying the alphabet. Help the child to see the difference between similar letters such as "b" and "d" or "p" and "g."
- Write each letter of a word on a separate card. Have the child place the cards in order as the word is sounded out. Show how to make new words (e.g., the letters p – a – t can be rearranged to make the word "tap" or the letter "p" can be removed to make the word "at").
- Think multisensorily. Children with some disabilities may need to experience letters with the senses: auditory, kinesthetic/tactile, and visual. For example, in addition to looking at and saying the letter "A," the child can draw the letter in a pie pan full of sand, flour, or salt. The child can then "erase" the letter by gently shaking the pan or wiping with a hand, so it's ready for more writing.
- As you read to a child, track syllables and words with a pointer finger. Teach the child to track words while reading alone.
- Listening to books on tape while following along in text helps promote reading enjoyment and skill. Students of all ability levels can benefit from following along in their books (while using a pointer finger to track words) while the tutor reads aloud.

Conducting a lesson with a child experiencing reading difficulties:

- Before reading, connect the subject of the story to a child's prior knowledge or experience (e.g., before reading *The Little Engine That Could*, ask if the child has ever seen or ridden a train). Let the child talk about the experience, then state that the story you're going to read is about a train that delivers toys to children. Building new information onto previously learned concepts increases interest, comprehension, and retention.
- Stop at key points in the story to ask what the student thinks will happen next. Stop later to confirm predictions. Discuss why events did or did not turn out as predicted.
- When a student stumbles on a word, help him sound it out by breaking it into individual letter sounds (e.g., kuh – ah – tuh for cat). Highlight the letters as they are sounded to help build letter-sound awareness. Have the child reread the sentence to focus on its meaning rather than on individual words.
- Provide immediate corrective feedback if a child mispronounces or misstates a word.
- After reading a story, have the child explain it in his own words.
- Prepare packets containing a copy of the book, an audiotape of a word-for-word reading of the book, and a tape player for the child to use at home to practice reading skills. Parents or grandparents can be instructed in how to use the book and tape.

(continued on page 12)

Are They Ready?

An Informal Assessment of Progress

In the past 20 years, research has convincingly shown that, unless children learn some social skills by their sixth birthday, they have a high probability of being at risk throughout life. The risks are many: poor mental health, dropping out of school, low achievement and other school difficulties, and poor employment history. According to researchers Dianne McClellan and Lilian G. Katz, given these lifelong consequences, relationships should be counted as the first of the four Rs of education.

Social development begins in a child's early years. All early childhood programs should, therefore, include regular and frequent formal and informal assessments of a child's social progress.

The Social Attributes Checklist includes social behavior patterns and preschool experiences that teachers should examine every three or four months. When using the checklist, teachers should pay attention to whether the attributes are typical. Any child can have one or two bad days. If assessments are to be reasonably reliable, behavior patterns should be analyzed over a monthlong period.

OFF TO A GOOD START

The quality and not the quantity of a child's friendships is the important index to note. Some children are shyer than others, and it may not be effective to push such children into uncomfortable social relations. Unless the shyness prevents a child from enjoying social activities such as birthday parties, picnics, and family outings, it is assumed that the shyness will be spontaneously outgrown.

Social growth is considered adequate if a child regularly shows many of the listed attributes. Occasional fluctuations should not lead to over-interpretations of temporary difficulties. On the basis of frequent contact with the child, observation in a variety of situations, and information from parents and other adults, a teacher can assess each child. If a child appears to be doing well, then it is reasonable to assume that occasional social difficulties will be outgrown.

However, if a child seems to be doing poorly in many areas, adults can implement strategies that will help the child to overcome and outgrow social difficulties. This checklist is only a guide and is not intended to supply a prescription for "correct social behavior." It can help teachers observe, understand, and support children as they grow in social skillfulness and to form a basis for helping a child to establish more satisfying relations with other children.

Finally, keep in mind that children vary in social behavior for a variety of reasons. Research indicates that children have distinct personalities and temperaments from birth. In addition, nuclear and extended family relationships obviously affect social behavior. What is appropriate or effective social behavior in one culture may be inappropriate or less effective in another. Children from diverse backgrounds may need help in bridging their differences and in finding ways to enjoy one another's company. Teachers have a responsibility to be proactive in creating an open, honest, and accepting classroom community.

The Social Attributes Checklist

I. Individual Attributes

1. Is *usually* in a positive mood
2. Is not *excessively* dependent on the teacher, assistant, or other adults
3. *Usually* comes to the program or setting willingly
4. *Usually* copes with rebuffs and reverses adequately
5. Shows the capacity to empathize
6. Has positive relationships with one or two peers, shows capacity to really care about them, miss them if absent, etc.
7. Displays the capacity for humor
8. Does not seem to be acutely or chronically lonely

II. Social Skill Attributes

1. Approaches others positively
2. Expresses wishes and preferences clearly; gives reasons for actions and positions
3. Asserts own rights and needs appropriately
4. Is not easily intimidated by bullies
5. Expresses frustrations and anger effectively and without harming property or other people
6. Joins ongoing groups at play and work
7. Enters ongoing discussions and makes relevant contributions to ongoing activities
8. Takes turns fairly easily
9. Shows interest in others; exchanges information with and requests information from others appropriately
10. Negotiates and compromises with others appropriately
11. Does not draw inappropriate attention to self
12. Accepts and enjoys peers and adults of ethnic groups other than his or her own
13. Interacts nonverbally (smiles, waves, nods, etc.) with other children

III. Peer Relationship Attributes

1. *Usually* accepted versus neglected or rejected by other children
2. *Sometimes* invited by other children to join them in play, friendship, or work

From *Young Children's Social Development: A Checklist* by Diane E. McClellan and Lillian G. Katz, 1993, ERIC Digest EDO-PS-93-6. Thanks to our sister Lab, PREL, for bringing it to our attention.

COMPREHENSIVE SCHOOL REFORM

Are You Ready to Transform Your School?

Exciting, frustrating, rewarding, scary. The attempt to change a school comprehensively can be all of these things. Thoughtful school leaders focus initial energy on assessing the school community's readiness and need for reform efforts. The work is too hard and the desired results difficult or impossible to achieve if there is not shared commitment and a clear understanding of the school's unique needs.

Matching a school's needs to a reform model is also important; however, the reform model is but one component of a school's reform plan. No single program can effect the kind of transformation that touches every aspect of school life, which is the aim of comprehensive reform. Making the changes that make a difference for students requires global thinking and informed planning.

Resources from AEL

AEL is working with the state departments of education in Kentucky, Tennessee, Virginia, and West Virginia to customize its assistance to fit each state's implementation approach. AEL is also available to consult with schools interested in designing or developing comprehensive school reform programs. Schools and districts are invited to

- Request a packet of self-assessment and planning tools
- Borrow videotapes from AEL that overview several comprehensive school reform models
- Visit our Web site at http://www.ael.org to download a catalog of models, to link to state departments of education, and to find out who in your area is already using a model
- Call Billie Hauser at 800-624-9120, ext. 5893, to discuss how AEL can help you design or develop a comprehensive school reform program

State Contacts

The Comprehensive School Reform Demonstration program provides $150 million for local schools to implement comprehensive reform programs that are based on reliable research and effective practice and that include an emphasis on basic academics and parental involvement. Each state has established its own schedule for implementing this program, as well as its own competitive process.

Kentucky
Joseph T. Clark
502-564-3791
http://www.kde.state.ky.us
First-round application deadline: 3/1/99

Tennessee
Barbara Adkisson
615-532-6297
http://www.state.tn.us/education
First-round application deadline: 9/3/98

Virginia
Robert Bordeaux
804-225-2904
http://www.pen.k12.va.us
First-round application deadline: 10/30/98

West Virginia
Suzette Cook
304-558-7817
e-mail: scook@access.k12/wv.us
http://wvde.state.wv.us/
First-round application deadline: 10/16/98

NEW PUBLICATIONS OF INTEREST

America's Children: How are they doing?

The Federal Interagency Forum on Child and Family Statistics recently released its second annual report on the well-being of the nation's 70 million children. *America's Children: Key National Indicators of Well-Being* provides information on critical aspects of children's lives, including their health, economic security, education, behavior, and social environment.

According to the report, children, from infancy through adolescence, are off to a healthier start in many ways. Infant mortality is at an all-time historic low, and the report also shows a dramatic decline in the number of children with high blood lead levels, which can cause IQ or behavioral problems.

While the report shows some overall positive trends in the health of young children, not all are doing equally well. Between 1995 and 1996, there has been no significant change in the number of children living in poverty. Children still represent 40% of the population in poverty and are more likely to experience housing problems and hunger, less likely to be immunized, and less likely to have a parent working full-time all year.

(continued on page 12)

(continued from page 11)

On the plus side, more young children are being read to by their families, participating in early childhood education, and improving their math scores on national achievement tests. However, according to the National Center for Education Statistics, high school completion rates and reading scores are stagnant.

This report represents a significant collaborative effort among the federal agencies that report regularly on various aspects of children's lives. Free copies of the full report are available from the National Maternal and Child Health Clearinghouse htt atp://childstats. atgov or call 703-356-1964.

Books on Assessment, Evaluation, and Standards

The ERIC Clearinghouse on Assessment and Evaluation has formed a unique partnership with the Internet bookstore amazon.com and a growing number of book publishers. The publishers provide ERIC/AE with the latest books on assessment, evaluation, and standards. ERIC/AE reviews the books for their relevance to the target audience, clarity of expression, contribution to practice, usefulness, and accuracy. ERIC/AE then rates the books and provides links to amazon.com, where you can order the books on-line.

Teachers, administrators, counselors, researchers, policy makers, parents, students, and the general public can browse the ERIC/AE bookstore at http://ericae.net/bstore and search the catalog for the latest titles on learning styles, grading students, alternative assessment, classroom testing, higher-order thinking skills, program evaluation, standards, and many related topics. In addition to the journal articles and reports ERIC/AE has always provided, commercial books are now included in the index.

(continued from page 9)

Tips for Tutors, References and Resources

Frost, J., & Emery, M. (1995). *Academic interventions for children with dyslexia who have phonological core deficits.* Reston, VA: ERIC Clearinghouse on Disabilities and Gifted Education.

National Information Center for Children and Youth with Disabilities (NICHCY). (1996). *NICHCY fact sheet number 11* (FS11). Washington, DC: Author.

National Institute of Child Health and Human Development (NICHD). (1998). *Why children succeed or fail at reading.* Bethesda, MD: NICHD, National Institutes of Health.

Shaywitz, S. (1996, November). Dyslexia. *Scientific American*, pp. 98-104.

The Arc. (1996). *Introduction to mental retardation.* Arlington, TX: Author. http://thearc.org/faqs/mrqa.html (1998, September 18)

Travis, J. (1996). Visualizing vision in dyslexic brains. *Science News, 149* (7), p. 105.

The
Link

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction
Requested

Telephone
304-347-0400
800-624-9120
304-347-0487 (fax)
link@ael.org

Terry L. Eidell,
Executive Director
Nancy Balow, Editor

The Link is available free of charge to educators in the AEL region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit
U.S. Postage Paid
AEL

```
**AUTO**************5-DIGIT 25325
VELMA MITCHELL                S7 P6***
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348
```

BEST COPY AVAILABLE

Editorial Board
Diana Bowman
Soleil Gregg
Pat Hammer
Jane Hange
Marian Keyes
Carla McClure
Beth Sattes

OERI

AEL is a private, nonprofit corporation. AEL serves as the regional educational laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer

The Link

Vol. 17, No. 4 • *Winter 1998*

AEL

Linking the knowledge from research with the wisdom from practice to improve teaching and learning

COMPREHENSIVE SCHOOL REFORM
Not Tested on Animals, p. 4

DISSOLVING BOUNDARIES
Making Connections, p. 5
From Teams to Teamed Instruction, p. 6

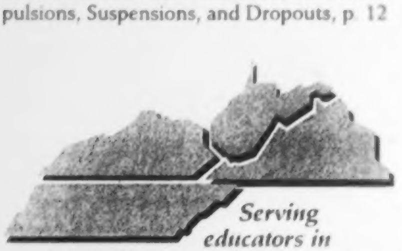
AEL PUBLICATIONS
Building Blocks of Algebra; Notes From the Field: KY Primary; ABC's of Parent Involvement, Order Form/Insert

FOCUS ON INSTRUCTION
Living in a Castle, p. 7

ANNOUNCEMENTS AND INFORMATION
21st Century Community Learning Centers; Appalachian Teachers Network, p. 8
AEL Project Joins the Scouts; QUILT to Cover More Students, p. 9
National Assessment Training, p. 10

RESEARCH NOTES
After-School Programs; Efffective Reading Teachers; Content-Related Professional Development, p. 11

NEW PUBLICATIONS OF INTEREST
School Reform Video and Book; School Expulsions, Suspensions, and Dropouts, p. 12



Serving educators in Kentucky, Tennessee, Virginia, and West Virginia since 1966

KC 028111

Listening to Students: Fad or Necessity?

By Carla McClure and Nancy Balow, AEL Staff Writers

Schools, businesses, and other organizations are captivated by the idea of becoming *learning organizations*. Organizational management expert Peter Senge first used this term to describe groups of people continuously enhancing members' capacities to create what they want to create. Senge asserts that modern organizations can succeed in a rapidly changing world if they develop the capacities of everyone in the group—not just an elite few—to continuously improve themselves and the organization or community (Senge, 1990).

Just recently have schools begun to realize the capacity students have for helping schools continuously improve. Is this new attention to student voice a fad, or is it a **necessary component of creating schools that prepare students to take responsibility for their lives?**

SCHOOL IMPROVEMENT

Good Things Happen When Educators Listen

Whether you believe listening to students is a fad or a necessity, evidence that it can be useful exists.

- Interviews with 200 students contributed to a study that helped researchers from AEL and the Kentucky Department of Education understand what was and wasn't working in the state's writing program. This knowledge is being used to plan professional development offerings for teachers.
- Teacher Joy Runyan discovered that when she gave students more say in what they would learn, their enthusiasm became her primary management tool.
- When students at Alexander Elementary School (TN) started leading parent-teacher conferences, parent participation rose to 84 percent schoolwide.
- Cave Spring High School (VA) teacher Randy Meck spent two days asking students to think about how and why they would change the class. He reported that students took more ownership in the class after he instituted changes they agreed on.
- Students' descriptions of how they learn best can inform teacher practices. In 16 focus groups, high school students in the AEL region, without exception, described teachers as the key to learning. They indicated they are less likely to learn when teachers lecture, use lots of work sheets, or talk down to them (AEL, 1997, p. 3).
- AEL researcher Becky Burns advocates teachers asking students to help them develop the criteria by which their work will be assessed. Students involved in creating rubrics better understand what's expected of them and find it more meaningful to perform well.

These examples indicate that listening to students is beneficial in two ways. First, the experience of simply being listened to can fill students' need for attention and affirmation. Nel Noddings' (1992) research indicates that academic success happens naturally when schools nurture students' social and emotional needs for caring. If they feel they are taken seriously and treated with dignity,

(continued on page 2)

(continued from page 1)

they are more likely to feel responsible for their actions and for their own learning. Second, by listening to those they serve, educators gain valuable insights into the hearts, minds, and cultures of students. Experienced teachers use this knowledge to help them design a variety of learning situations to reach all students. School leaders can incorporate this knowledge into programs and policies that affect school life.

Factoring in student voices when making decisions models an important information age skill: how to collect and use information to improve a system that affects the quality of people's lives. And it can create hope: If students can make a difference in their school, they are more likely to believe they can make a difference elsewhere.

A Shift in Thinking

Only recently have many schools begun to include students on school improvement teams and focus groups and to otherwise find ways to listen to education's young consumers.

Some may view this trend as merely an extension of a market-based economy's reliance on consumer feedback. Others may see it as something more: a renewed commitment to including young people in the democratic process. It also acknowledges that the key to unlocking both human and economic potential is collaboration—not competition—among classmates and among all members of a school community.

Observers have noted that the perspectives of students on the strengths and weaknesses of changes in their schools can be strikingly insightful, but "educators have a difficult time hearing their concerns" (Wagner, 1995/96, p. 43). Maybe school leaders infrequently involve students in change efforts because it requires a shift in thinking—away from seeing education as a system for delivering a set of predetermined information to defining education as a process that helps students build the skills to shape their own lives. Perhaps it reflects the general feeling that students are too inexperienced to know what's best for them. It could even be that some adults fear that their authority will be challenged or lessened if they share decision making.

Robert E. Blum, who leads the regional laboratories' School Change Collaborative, shares this telling detail: "Even though participants in the collaborative agreed early on about a focus on student learning, no students were involved for well over two years" (Kushman, 1997). Now, with students involved, the collaborative is more convinced than ever that including young people in change efforts is of value.

Members of the School Change Collaborative realize that effectively listening to and involving students calls for new tools that can help adults and young people relate to one another in new ways. While designing student focus groups as a technique for self-study, researchers learned that students felt most empowered when they were not only asked to identify problems but also involved in finding

(continued on page 3)

Effectively listening to and involving students calls for new tools that can help adults and young people relate in new ways.

Processes for Working Toward School Change

The School Change Collaborative of the Regional Educational Laboratory Network includes researchers from eight regional labs; educators from public schools, colleges, and universities; students; and parents. Members share tasks and decisions, conduct independent and group research projects, and share their findings with one another. As AEL's Sandra Orletsky explains, "What we learn, we take away and apply to our work with schools, so its value increases exponentially. And, in turn, what we do in schools informs the work of our collaborative learning community."

Last year the group published a collection of stories about various efforts to engage students in school restructuring efforts. *Look Who's Talking Now* gives actual examples of processes schools have used to elicit student opinions and provides guidance for using them in other schools.

This past summer, AEL and Quest sponsored "Focus on Student Work: A Conference on Continuous School Improvement," which introduced many of the processes to schools in the region.

Data in a Day and student focus groups are among the processes the collaborative has nurtured and continues to develop. These methods directly elicit student perceptions and opinions about their learning environments. Teachers and schools can also learn to listen to students by looking at their work and gauging the effectiveness of teaching by its quality. Processes that take this approach include Senior Project, the case method, project-based learning, and the Protocol, a process whereby a group helps an individual reflect on practices.

For more information on the processes, see "Learning from Student Work" on AEL's Web site at http://www.ael.org/rel/quest/stories/learning.htm. *Look Who's Talking Now* can be ordered from Northwest Regional Educational Laboratory. Contact NWREL Document Reproduction Service by phone at 503-275-9519, by e-mail at products@nwrel.org, or online at http://www.nwrel.org.

solutions. To benefit from such involvement, schools need simple tools that effectively engage young people in improvement efforts. The collaborative and its members are creating tools for this purpose (see box, p. 2).

Focusing Improvement Efforts

Like many projects of the collaborative, AEL's Quest for Quality Learning Communities is guided by ideals of continuous learning and growth. Directed by Sandra Orletsky, Quest works to help schools that want to reform their organizational structures and improve student learning. Quest schools throughout AEL's four-state region agree to join a network and support one another, meeting by phone or listserv and at rallies, symposia, and other co-ventures in learning. Students, teachers, parents, and administrators each have a place and a voice in every activity, both within the school and within the network. Quest teachers, parents, and students draw on the experiences of the School Change Collaborative's learning community to create a similar quest for continuous learning and growth within their own schools.

Schools intent on becoming learning communities must answer for themselves the question of what it is they want to create. If one of the answers is self-reliant learners who recognize their value and power as citizens in a democracy, educators might do well to follow some familiar advice: Stop, look, and . . . listen.

References

AEL. (1997). *Let's ask the students.* Charleston, WV: Author.

Kushman, J. W. (Ed.). (1997). *Look who's talking now: Student views of learning in restructuring schools.* Portland, OR: Northwest Regional Educational Laboratory.

Noddings, N. (1992). *The challenge to care in schools.* New York: Teachers College Press.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Currency/Doubleday.

Wagner, T. (1995, December/1996, January). Seeking common ground: Goal-setting with all constituencies. *Educational Leadership, 53*(4), 40-44.

Using Tools to Involve Students

When schools decide to use self-study processes, they often find that the hardest part of any process is coming up with good questions. Questions, after all, provide the focus for the research.

Recently AEL's Beth Sattes helped a Quest school to plan some self-study events. Because the school has a fairly new writing program, teachers wanted to use the Protocol (see p. 2 box) to reflect on it. Sattes suggested the following, which can be used as a model for formulating effective questions on any topic.

If I were a teacher, I might wonder:

- Are my students good writers? What can I do to help them improve their writing?
- What is "good" writing? Am I clear about that to myself—and to my students?
- What is reasonable to expect of fourth graders? Am I expecting enough? Am I expecting too much?
- Are my writing assignments meaningful and authentic? (Do they have meaning beyond success in school?) That is, are students motivated to try their very best? What writing assignments might be more energizing and motivating for students?
- Look with me at this child's writing. What can I do to help this child become a better writer? (Here's what I've tried; here's what he has done; this is the feedback I gave him; this is the next product; here are the problems that I see; here are the areas in which he has improved; but these are the major limitations; and so on.)
- I have a student who has lots of good ideas, but he can't seem to organize his thoughts. How can I teach him to organize his thoughts in paragraph form?
- Some of my students' writing is disjointed, that is, they write several sentences but the sentences are not tied together. What can I do to help them improve this skill?
- Are there certain areas of writing in which my students (as a group) are more proficient? Are there areas in which they are relatively weak? What are those areas? How can I look at their work and draw generalizations that might help me focus my teaching?
- When students write, what is the best way to give them feedback or ask them to re-write—so they improve their writing as a result? What do we know about students' understanding of teachers' feedback on their papers?

The School Change Collaborative's Starter Questions for Data in a Day

- What does being a successful learner mean to students?
- How do students feel they learn best?
- What do students feel the school and teachers are doing to help them learn?
- What do students wish the school and teachers were doing to help them learn?

BEST COPY AVAILABLE

Not Tested on Animals

Program Evaluation: Doing it Right

By Nancy Balow, AEL Staff Writer

When it comes time to evaluate a program, researchers and practitioners clearly have different emotional responses.

Researchers welcome evaluations. Their development of effective programs and practices is guided by properly designed and rigorously conducted peer reviews, pilot tests, and field tests. Known as formative evaluations, these and other tools are commonly used in most areas of research.

By the time a program reaches practitioners, it's generally assumed to "work." Its designers have taken out the bugs discovered during formative evaluation and have produced summative evaluation findings that show the program's effectiveness.

Practitioners, however, may fear evaluations. Negative reports, especially at the school level, may be interpreted to blame the users and result in penalties. School officials may feel threatened by the possibility of state sanctions or staff transfers.

There's no denying that evaluation costs money, another factor that makes it unpopular in these times of tight budgets.

Professional evaluators hate being seen as the bad guys, especially when they know that a well designed evaluation can have positive rather than negative results. Done right, program evaluation shows the way to improvements in teaching and learning.

Such evaluation is especially important during the first large-scale use of a new program design—exactly the situation with many of the models being suggested for adoption in the Comprehensive School Reform Demonstration program (CSRD) created by last year's Obey-Porter legislation.

While field tests of these models may have shown good results, in many cases the results come from a few carefully selected sites that were steered through the implementation process. No one knows what will happen when the programs move into schools with different characteristics and without the constant attention of the program designers.

> In the future, schools across the country will base their reform efforts on what is learned in the next several years.

When AEL began working with the CSRD program, we recognized an opportunity to better understand how large-scale adoption of school reform models can be evaluated. We've formed a partnership with Steven Ross, Marty Alberg, and other staff at the Center for Research in Educational Policy (CREP) at the University of Memphis in Tennessee. Ross is nationally recognized for his pioneering work in formative evaluation, particularly of reform models included in the national catalog.

In Ross' view, AEL and the university "bring together highly complementary interests and skills" for helping schools to select, implement, and evaluate education reform models. The partnership team will design and develop materials and processes to conduct formative evaluations specific to comprehensive school reform programs. As the three-year funding period for CSRD unfolds, the team hopes to accomplish several goals.

First will be support to individual schools as they implement schoolwide reform programs. Evaluating each school's progress at yearly intervals will help it to successfully adopt or adapt its program. Researchers will start by working with school leaders to set benchmarks for progress.

Then will come interviews and surveys of teachers, students, and parents; breakouts of test scores; and observations of classroom activities and other school events. Although some data will be collected continuously, another round of surveys and observations will be done after several months. From these will come a year-end report, which reform leaders can use in their planning for the next level of implementation.

Although the partnership will concentrate on CSRD schools, it will also respond to requests from other schools interested in the service. And, in order to help all schools in the region, a series of evaluation forums will be convened to present information about the techniques for and uses of formative evaluation.

Finally, still in partnership with CREP, AEL plans to contribute to the knowledge about the various CSRD models. Researchers will conduct a full-scale study of school reform across the region to compare models to one another, study the impact of comprehensive schoolwide reform efforts on student performance, and see how any given model works when adopted by different schools in different contexts.

Plenty of time, money, and effort will be riding on the CSRD program. But, most important, children's lives will be greatly affected. In the future, schools across the country will base their reform efforts on what is learned in the next several years. As this experiment in school reform begins, we intend to learn as much as possible.

Making Connections

Interdisciplinary Teamed Instruction as a Tool for Change

By Charles Jervis, Stephen Bull, Gerald Sauter, and Patricia Turner at Auburn High and Middle School in Riner, Virginia

Innovation is not a new concept for small schools. A predisposition for doing things differently and creatively means that small schools are often more receptive to change than larger ones. In fact, reformation and renewal ideas can easily emerge from small schools and go on to serve as models for use in larger school settings.

Auburn High and Middle School serves 620 students in grades 6-12 in Montgomery County, Virginia. For most of its history it has been rural, but now housing developments cover former pastureland, bringing hints of urbanization. While still smaller than many public schools, Auburn will soon split into two schools—a high school serving grades 9-12 and a middle school serving grades 6-8.

As in many small schools, Auburn faculty are responsible for multiple grade levels and multiple subjects within a single discipline and, occasionally, between disciplines.

Within this setting, we see crystallizing moments, almost epiphanies, in which something that a student says or does brings into sharper focus the meaning of *what it's all about*. One such awakening occurred here several years ago in an American literature class.

The story goes that the students were just entering from a variety of other classes, including American history. In the flurry of action as class began, one student asked the teacher, "Is this John Smith we're talking about in here the same John Smith we're talking about in history?"

> **We design projects with interdisciplinary opportunities. We encourage students to make connections within our design and they increasingly come up with connections made on their own.**

With that question, we teachers realized that connections obvious to us—which we thought were being shown to the students—were not being made as quickly and as fully as we'd hoped. We recognized the need for more organized, integrated coverage, and our American literature and American history classes changed forever.

The Move to Change

From the coordination of thematic coverage in literature and history, the idea of interdisciplinary instruction spread. Mathematics classes worked with science classes, science classes worked with social studies classes, and everyone worked with the language arts classes. A climate of shared resources and instruction developed. Our school was ready for something that could focus this effort to a finer point. The opportunity came in the form of AEL's Interdisciplinary Teamed Instruction, an applied research and development project.

During the summers of 1992 and 1993 and the academic years 1992 through 1994, a team of Auburn teachers and administrators took a serious look at interdisciplinary teaming as a way to improve student understanding and enhance learning opportunities.

Our work led to AEL's model for systemic change described in *Dissolving the Boundaries: Planning Curriculum Integration in Middle and Secondary Schools*. At Auburn, it also led to the development of a philosophy of integrated study that permeates much of what we do.

The Effects of Change

Auburn teachers now enjoy more open communication with colleagues, more frequent sharing of resources and information, and greater coordination of instructional goals, efforts, and methods. It is not uncommon to find students working on research projects in history, literature, mathematics, Spanish, and science classes. Of course, they've always done that. However, since our joining with AEL, students may be working on the *same* investigation or project in several classes—and producing higher quality work.

We design projects that have explicit interdisciplinary opportunities. We encourage students to make connections within our design and they increasingly come up with connections made on their own. At any given time in the school, activities may be coordinated between pairs of teachers, small teams of teachers, an entire grade, or even the entire school. As one teacher puts it, the projects that emphasize interdisciplinary coverage "add needed variety to the students' learning."

Some barriers remain. Certainly, a large amount of time needs to be spent coordinating and organizing with other

(continued on page 6)

Dissolving Boundaries

(continued from page 5)

teachers. The pressure to "cover SOLs" (Virginia's Standards of Learning), the lack of common planning time, and the physical proximity of students and teachers for large-group instruction are other issues we need to address. The benefits, however, encourage us to continue.

For instance, the conscious effort to look at what we are doing, the impact it has on the students, how we use resources, how we can enhance and reinforce content, and how we can connect what is in the school to the larger environment are just a few of the changes. We're pleased to see that test scores have taken an upward trend. And, true to the law of unintended consequences, we have observed some surprising benefits.

For example, in our ITI-based study of warfare, an intergenerational connection developed when students decided to interview their own relatives. In portfolios produced to demonstrate their understandings of the affect of war on our society, students included personal effects and perspectives that strengthened the bonds between grandparents, parents, and children.

The Discipline of Change

We do not "just do it"; rather we think about doing it, do it, reflect upon doing it, and modify how we do it. Depart-

From Teams to Teamed Instruction

By Becky Burns, AEL Staff

Interdisciplinary Teamed Instruction can help schools dissolve boundaries between those who care about learning. In secondary schools, it can bring order to proliferation and transform them into more empowering institutions.

To succed, teams need time together to learn, to plan, to teach, to reflect on, and to evaluate their work and students' work, and to redesign their efforts. Given this support, they may face other problems. In my work with schools, I have identified three such problems and offer these suggestions for handling them.

1. **Lack of understanding of the nature, purpose, and function of teams.** This can be related to the "polarity problem" as described by Heidi Jacobs, wherein teachers feel a strong identity with their subject matter and are reluctant to look at it through different lenses. To overcome this, teachers need to find common ground for integration. This may be done by connecting standards and learning goals across content, sharing learning activities and assessments, and selecting topics that are broad enough to be valid for all disciplines included. Also, successful teams have leaders, and team members have specific roles and responsibilities.

2. **Different interpretations or philosophies of "interdisciplinarity."** Teams that succeed with integration take time to explore a continuum of designs and team structures, and to assess their readiness for change. Teachers and principals should work together to determine the most appropriate options. Middle and high school teams frequently include two to five members who represent core academic areas. Some high schools use career clusters to integrate academic and vocational programs. One of the most successful high school teams is the humanities team, which may include social studies, English, and fine arts teachers. Some schools integrate content within disciplines, such as science courses that integrate life science, chemistry, and physics.

3. **Inadequate understanding of curriculum design.** The ground rule for an interdisciplinary unit is "the whole must be greater than the sum of its parts." A unit must be organized around a significant unifying principle. For example, integrating disciplines around problems and life issues is a natural and purposeful teaching strategy. Teams should be sure that themes demand the best from each discipline, engage students, and naturally support integration. Furthermore, teams must carefully make connections between intended outcomes, learning activities, and assessments. Designs for quality interdisciplinary curricula consider the needs and interests of students as well as the content and processes of the disciplines and their application to authentic tasks.

References

Burns, R. C. (1995). *Dissolving the boundaries: Planning for curriculum integration in middle and secondary schools.* Charleston, WV: AEL.

Burns, R. C. (in press). Interdisciplinary teamed instruction. In J. Klein (Ed.), *Interdisciplinarity K-16: Perspectives on Integrating Curricula.* New York: The College Entrance Examination Board.

Jacobs, H. H. (1989). *Interdisciplinary Curriculum: Design and Implementation.* Alexandria, VA: Association for Supervision and Curriculum Development.

BEST COPY AVAILABLE

Fold this panel to inside before mailing, then seal with tape.

Shipping information: (please print)

Name ____

Title ____

Organization ____

Address ____

Daytime phone (____) ____-____
(in case we have a question about your order)

Method of payment:

____ Check (drawn on a U.S. bank)

____ Money Order

____ Institutional purchase order (# ____)

____ Visa ____ MasterCard

____ Exp. date ____

Cardholder name ____

Signature ____

Name: ____

Title: ____

Organization: ____

Address: ____

☐ Change of address; please correct your records

☐ I am not on your mailing list; please add my name

Postage Required

AEL DISTRIBUTION CENTER
P O BOX 1348
CHARLESTON WV 25325-1348

Use this form to order materials from AEL.

Please check (✔) your selections and complete the shipping information above.

Be sure to include payment for priced items.

We now accept VISA and MasterCard.

AEL Order Form

Pull out Fill out Mail back

RESOURCES AVAILABLE FROM AEL

Some documents can be downloaded from our Web site: http://www.ael.org

___ **A Guide to Gender Fair Education in Science and Mathematics (1998)**

This publication presents information gathered from the research and programs developed by hundreds of teachers and researchers in the field of educational equity. The activities highlighted are examples of programs supported by the U.S. Department of Education and National Science Foundation, as well as states, counties, and cities. It includes an annotated bibliography of programs for girls in grades K-12. $15; 40 pp.

___ **EdTalk: What We Know about Reading Teaching and Learning (1996)**

This publication identifies the latest knowledge in reading education. It also suggests special approaches to teaching minority, disabled, and limited-English-proficiency students and offers ways to involve parents and the community in students' reading development. Other areas covered include basal readers, strategic reading, technology's role in reading instruction, professional development for reading teachers, and reading's relationship to other language arts and general subjects. $5; 70 pp.

___ **Expanding the Vision: New Roles for Educational Service Agencies (1998)**

Educational service agencies can serve an essential role today to rural districts as they face the challenges of systemic school reform, according to E. Robert Stephens in this book from AEL's Rural Center. Stephens details the forces that are shaping current expectations of rural public education and lays the groundwork for considering future possibilities for agency programs and services. $15; 172 pp.

___ **Family Connections Parent Notebook**

The *Family Connections* learning guides are now offered in a notebook for parents. The colorful learning guides are available in three volumes: *Family Connections 1* is for families of preschool children, *Relaciones Familiares 1* is the Spanish-language version, and *Family Connections 2* is for parents with kindergarten children. Each notebook contains a set of 30 four-page guides, plus tips for using them. Each guide includes a **message** to parents, one or more **read-aloud** selections, and fun **activities** for parents and children. $12.95 each ($9.95 without 3-ring binder).

___ **Graphing Calculators in Mathematics Grades 7—12: A Resource Guide for the Classroom and for Preservice/Inservice Training (1998)**

This resource guide—developed by the Center of Excellence for Science and Mathematics Education (CESME) and published by the Eisenhower Regional Consortium for Mathematics and Science Education at AEL—offers a series of lessons covering a wide variety of mathematical concepts and topics. Planned for teachers with no experience with graphing calculators and for those who have used the instruments since their inception, these lessons emphasize hands-on, problem-solving approaches, with connections to science and the real world. $39; 250 pp.

___ **Implementing Schoolwide Projects (1994)**

This idea book from the U.S. Department of Education paves the way for creating programs under Title I of the Elementary and Secondary Education Act. It describes how innovative educators leveraged federal funds to reform schools that serve some of the nation's most disadvantaged children. A resource for policy makers and practitioners alike, the book also discusses research that supports whole school change, highlighting key components of successful programs and obstacles often faced during reform efforts. $7.50; 112 pp.

___ **In Accord with Nature (1998)**

In Accord with Nature demonstrates how educators and youth leaders can help middle-school-age and higher level students understand and define their relationship to nature and learn the importance of protecting the environment. Alternative teaching strategies and structured activities will connect students with the natural and the built worlds. $19; 192 pp., (ISBN 1-880785-20-X). Also by Knapp:

___ *Just Beyond the Classroom: Community Adventures for Interdisciplinary Learnin.* (1996). $12; 108 pp., ISBN (1-880785-15-3)

___ *Lasting Lessons: A Teacher's Guide to Reflecting on Experience* (1992). $12; 117pp., (ISBN 1-880785-06-4)

___ **K-8: Building Blocks of Algebra (1998)**

Recent research about the human brain supports what teachers have long observed: students learn by fitting new information together with what they already know. *K-8 Building Blocks for Algebra: Patterns, Functions, Relationships* provides K-8 teachers with activities that help develop a child's ability to think logically, form generalizations, and predict future events. Patterns, functions, and relationships bring the real world into the mathematics classroom and help children make sense of the relationships between numbers. $18; 108pp.

___ **Making Schools Work for Every Child (CD-ROM, 1998)**

This collection of math and science materials helps teachers and administrators acknowledge children's diverse strengths, identify inequities, and improve the ways educators serve students with varied needs. The Eisenhower National Clearinghouse, co-developer of the CD-ROM, maintains a web site of the disk's contents: http://equity.enc.org. **Free.**

___ **1997 Native Education Directory: Organizations and Resources**

This directory includes information about national and international nongovernment organizations related to Native education; federal departments and agencies; congressional committees; periodicals; tribal college and university programs for Native language instruction and preservation, Native studies, and Native student support services; and expanded state listings. $12; 108 pp.; soft cover (ISBN 1-880785-17-X).

___ **Notes from the Field: Evolution of the Primary Program in Six Kentucky Schools. Vol. 6, No. 1 (1998)**

In this issue, researchers examine the development of the primary program in six rural Kentucky elementary schools, which they studied for eight years. This report is based on the entirety of the research, but the most detailed description comes from the 1996-97 school year, when researchers narrowed the focus of their work to the class of 2006. These students were in their final year of the primary program during 1996-97. $2; 12pp. plus 8-page supplement.

___ **Planning Schools to Serve Rural Communities (1998)**

This resource from AEL's Rural Center discusses the character of a good rural community school and briefly considers the relationships among learning, community, and facility construction in rural areas. **Free**; 8 pp.

___ ***Preventing Antisocial Behavior in Disabled and At-Risk Students* (1996)**

This issue of *Policy Briefs* focuses on children with ADHD and learning disabilities, presents a model that promotes prosocial behavior, and suggests considerations for preventive practice and policy making. $2; 12 pp.

***Recruiting and Training Volunteer Tutors of Emergent and Beginning Readers in the Primary Grades* (1998)**

This manual identifies characteristics of effective tutoring programs, suggests ways to recruit tutors and select the students they'll work with, presents a model for conducting tutor training sessions, and provides activities tutors can use to help emergent and beginning readers. Colorful activity cards guide tutors through reading, comprehension, word study, and writing activities. In addition, the activities are demonstrated on the trainer's video, which is divided into two 45-minute sessions. (See p. 4 of the Order Form for more details.)

___ Trainer's package (includes 90-minute video, 64-page manual, and 15 activity cards): $225. Product number D98-009-L173.

___ Tutor's package (includes 64-page manual and 15 activity cards). $30. Product number D98-010-L173.

___ ***Rural Education Directory*: Organizations and Resources (1996)**

This directory includes information about national organizations, federal government programs, state organizations, state department of education rural program coordinators, state data centers, and rural journals. $6; 65 pp.

___ ***School-Based Programs to Promote Safety and Civility* (1998)**

More and more, schools are adopting various antiviolence programs that, until recently, hadn't been studied for effectiveness. Now, several rigorous studies provide information to help schools and policy makers select methods that may work for them. This issue of *Policy Briefs* looks at these studies and reviews the programs found to be most effective. The publication focuses on more than 20 primary and secondary level programs, all of which get a thumbs-up from researchers. Complete contact information is provided for each program. $2; 12 pp.

___ ***Schools for Disruptive Students: A Questionable Alternative?* (1998)**

Recent safe-schools legislation and commitments to provide orderly, safe learning environments have prompted states to create alternative schools for disruptive students. This issue of *Policy Briefs* reviews the research on alternative schools and suggests indicators policy makers can monitor to judge the effectiveness of alternative school legislation. $2; 8 pp.

___ **The ABC's of Parent *Involvement* (1998)**

The ABC's of Parent Involvement in Education: Preparing Your Child for a Lifetime of Success offers information, inspiration, ideas, and expert advice to parents with children of all ages. During the book's creation, AEL's Family Connections staff contributed early childhood knowledge. Parents, researchers, and parenting professionals share their experiences in this resource guide. 134pp. Individual copies are $3.00, shipping and handling included, and a box of 50 costs $65.00, including shipping. To order, contact Linda Santrock by phone at 800-624-9120 or by e-mail at santrocl@ael.org.

AEL Information (free)

☐ AEL Products & Publications Catalog-temporarily out of stock. See our web site (http:www.ael.org) or call for information

☐ Sample *Family Connections 1* and *2*—take-home learning guides for young children

☐ Interdisciplinary Teamed Instruction—annual institutes that help school teams plan integrated courses, units, and lessons

☐ QUEST—a process to help schools along the improvement journey

☐ QUILT—Questioning and Understanding to Improve Learning and Thinking—a nationally validated, research-based professional development program

Information Search Packages

These information packages contain a variety of current resources and are excellent references for educators, policy makers, and the public. Included are reprints of articles from journals, newsletters, and periodicals; ERIC Digests; an ERIC search; and information about AEL-produced materials and other resources.

___ *Block scheduling* (1996) $15; 142 pp.

___ *Promoting safe schools* (1996) $15; 178 pp.

___ *Technology in Education* (1998) $15; 136 pp.

Theme Issues of The Link

Available in quantities of up to 100, while supplies last. **Free**.

___ *Inclusion* (1996)

___ *Respectful Learning Environments* (1997)

Please add my friend or colleague to your mailing list (please print legibly)

Name ______________________

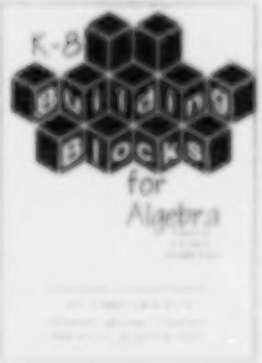
Title ______________________

Organization ______________________

Address ______________________

NEW AEL PRODUCTS

K-8 Building Blocks for Algebra



Recent research about the human brain supports what teachers have long observed: students learn by fitting new information together with what they already know. Students who already know how to look for patterns, recognize relationships, and make generalizations are better equipped to succeed in high school algebra courses. *K-8 Building Blocks for Algebra: Patterns, Functions, Relationships* provides K-8 teachers with activities that help them prepare students for a formal algebra course. The focus of this guide is on algebraic thought rather than algebraic symbol manipulation. While it may contain some new concepts, it mainly provides a new focus on what is already being taught.

Building Blocks is designed to help develop a child's ability to think logically, form generalizations, and predict future events. Patterns, functions, and relationships bring the real world into the mathematics classroom and help children make sense of the relationships between numbers. Activities are grouped by grades (K-2, 3-5, and 6-8) and include a list of necessary materials and background information. The step-by-step progression through each lesson offers teachers a structure that can be used as presented or adapted to a particular classroom situation.

The ABC's of Parent Involvement

Last March, AEL partnered with the National Parents' Day Coalition to create a handbook for parents that was distributed in the Washington, DC, area. The book proved so popular that we've just reprinted it and now offer it nationally.

The ABC's of Parent Involvement in Education: Preparing Your Child for a Lifetime of Success offers information, inspiration, ideas, and expert advice to parents with children of all ages. During the book's creation, AEL's Family Connections staff contributed early childhood knowledge.

Studies tell us that parents want to be involved in their children's education, but often hold back because they feel they have nothing to contribute, they don't understand the system, or simply feel intimidated. This handbook raises awareness, energizes, and empowers parents with ideas on ways that they can overcome these barriers.

Parents, researchers, and parenting professionals share their experiences in this resource guide.

Kentucky Primary Program

Notes from the Field: Evolution of the Primary Program in Six Kentucky Schools Vol. 6, No 1 (1998)

In this issue, researchers examine the development of the primary program in six rural Kentucky elementary schools, which they studied for eight years. This report is based on the entirety of the research, but the most detailed description comes from the 1996-97 school year, when researchers narrowed the focus of their work to the class of 2006. These students were in their final year of the primary program during 1996-97. $2, 12 pp. plus 8-page supplement.

From the ERIC Clearinghouse on Rural Education and Small Schools (ERIC/CRESS)

In Accord with Nature

Helping Students Form an Environmental Ethic Using Outdoor Experience and Reflection

By Clifford E. Knapp

In Accord with Nature demonstrates how educators and youth leaders can help middle-school-age and higher level students understand and define their relationship to nature and learn the importance of protecting the environment. Knapp maps out an educational journey that begins the moment you step outdoors. Alternative teaching strategies and structured activities will connect students with both the natural and built worlds. An examination of the history of environmental ethics underscores the complexity of reaching agreements about how to live more gently on the Earth.

Clifford E. Knapp is a professor in the Curriculum & Instruction Department in the College of Education at Northern Illinois University; he has developed a graduate course that focuses on teaching environmental ethics. Knapp also authored *Just Beyond the Classroom: Community Adventures for Interdisciplinary Learning* and *Lasting Lessons: A Teacher's Guide to Reflecting on Experience*.

See inside for ordering information.

BEST COPY AVAILABLE

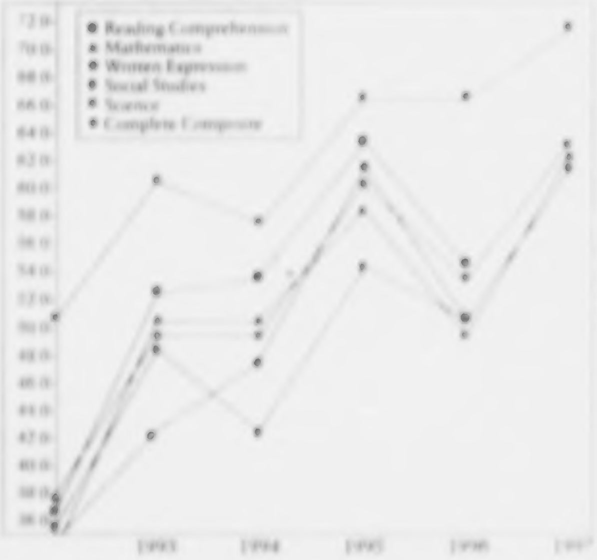
(continued from page 7)

ment and library purchases are coordinated for more efficient use of funds. Field trip planning is coordinated so students going on an "English trip" also investigate historical and scientific topics, then present their findings using art skills.

We have changed at Auburn. We are still in the process of changing. Challenges lie ahead. As our community grows, our school will split into two. New people continually come on staff. Administrations change at building and central office levels. The state emphasizes change. The move toward a fully integrated curriculum goes in starts and stops. However, the constancy of purpose with regard to ITI remains steadfast.

As one of our teachers said: "ITI is a win-win situation for students and faculty."

For more information about ITI, contact Becky Burns by e-mail at burnsb@ael.org. Copies of Dissolving the Boundaries *may be ordered from AEL; contact Linda Santrock, santrocl@ael.org.*



Iowa Test of Basic Skills scores for 11th grade students from 1993-1997. Graph provided by Auburn High and Middle School

FOCUS ON INSTRUCTION

Living in a Castle

Using the Arts to Teach Social Studies

"You cannot teach without the arts," declares drama teacher Dorothy Coy.

"The arts are the universal language," replies visual arts teacher Susan Brookreson.

Two dedicated teachers with more than thirty-five years of experience between them describe a successful project combining art, drama, music, and medieval history. They teamed up with social studies teacher Orren Bethel to give 200 high school students at West Virginia's Hedgesville High School a better understanding of life in Europe during the 13th and 14th centuries.

Featuring articles about teachers in the AEL region

Coy and Brookreson both believe in the intrinsic value of the arts, but knew that creating this interdisciplinary project would require extra work. Coy observed, "All teachers are hell-bent to fulfill requirements. To take the time to work out the details of an interdisciplinary project is not easy. I was lucky to have colleagues who were interested. I already knew that Susan taught art chronologically and Orren taught a unit on medieval history."

Brookreson adds, "This approach takes some flexibility because we work under so many imposed restrictions. It takes a very determined person to pull it off. I liked the pressure, the commitment it took."

Coy explained, "Anyone who understands that all things are connected can teach an integrated project."

Brookreson adds, "With guidance, a first-time teacher can do it. It doesn't have to be someone with 20 years of experience." As to the relationship between the acquisition of understanding and the acquisition of skills, Brookreson comments, "We are asking students to learn separate ideas. We know there is a connection between them. They don't always make the connections on their own."

The two art educators offer several suggestions. "Start at the beginning of the year," says Coy. "Get the history and social studies teachers fired up. Get them thinking about teenagers in the Middle Ages. What is it like to live in a castle? This engages kids in the 20th century."

"A good place to start is with literature. Every year I have my freshmen read the allegorical play *Everyman*. It's easily understood . . . a morality play about the way we judge people, very black and white."

"Bring in an artist," advises Brookreson. "The arts involve many ways of learning and emphasize learning by doing. For example, invite a musician who knows Renaissance music, a stained glass artist, a sculptor, a potter, or an architect. They can talk about their work and relate it to the

(continued on page 8)

BEST COPY AVAILABLE

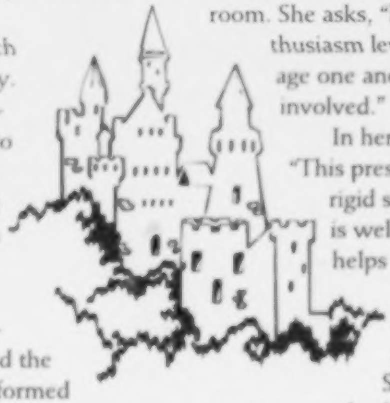
historical times you are studying. Use your community resources."

"I have a big map in my art room, and start teaching art history and geography before anything else. I begin with prehistoric art and proceed to the 20th century. I use music of the era as we go along."

Coy explains that the impact of the church on all aspects of society is one focus of study. "The church was the only form of entertainment, and the music and art are important to understanding the politics and history. Kids hate history but they love it when we teach this way." "This is very vivid learning," says Brookreson. "Kids are learning more. They remember better."

"We studied Gothic painting. The art students designed huge paintings that simulated the look of stained glass windows, which then formed the backdrop for the performance of *Everyman*. We did the play as a staged reading. Everything was dark, like a medieval church. We played Gregorian chant music. It was very effective."

Both teachers describe how the students became teachers themselves during a 50-minute program about the Middle Ages. Following a brief synopsis of the 1400's by Bethel, several students told the audience what it was like to be a teenager then.



When asked if the state learning goals and objectives in the arts helped in this project, Brookreson replies that her lesson plans reflect only part of what happens in the classroom. She asks, "How do you write down things like enthusiasm level, how students cooperate and encourage one another? It's evident to those of us who are involved."

In her project evaluation, Brookreson wrote, "This presentation is a challenge, especially when rigid schedules are involved, but the final result is well worth the effort. This kind of teaching helps students understand the interconnectedness of all subjects. It also leads to a heightened appreciation and knowledge of colleagues in other departments." She concludes with the observation, "Because so much of the teaching of this lesson is student generated, students derive a great deal of pride and a sense of ownership from this type of learning."

Adapted with permission from an article by Pam Parziale that appeared in ArtWorks, *published by the West Virginia Commission on the Arts, Charleston, WV. Parziale can be reached by e-mail at parziale@intrepid.net.*

ANNOUNCEMENTS AND INFORMATION

21st Century Community Learning Centers

The U.S. Department of Education, with the National Community Education Association and the National Center for Community Education, will offer a series of one-day regional workshops for those who may apply for grants under this program. Workshops will feature

- Tips on preparing grant applications
- Research results
- Examples of high-quality programs and activities in the region

Workshops for our region will be held on January 16 in Washington, DC, and on January 30 in Atlanta, Georgia. Sponsored by the C.S. Mott Foundation, workshops are free. Registration must be received no later than January 9, 1999.

For more information, contact NCEA by phone at 703-359-8973 or by e-mail at ncea@ncea.com.

Appalachian Teachers' Network

We all know how important having a sense of place can be. It helps us define ourselves as individuals and as members of our communities. Because America includes so many different "places," recognizing and celebrating that sense may not be built in to our school programs.

If you'd like help in exploring Appalachia's heritage with your students, the Appalachian Teachers' Network may be for you. A branch of Radford University's Appalachian Regional Studies Center, the network sponsors a newsletter and an annual conference.

Workshops explore topics such as Appalachian literature, history, folklore, Native and African American studies, and Appalachian arts and crafts. Participants share ways to incorporate these topics into courses that meet state standards, and conference participation can earn re-licensure credits. Network members sometimes work on joint projects for presentations to groups such as the Appalachian Studies Association.

To join, send $10 to the Appalachian Teachers' Network, Appalachian Regional Studies Center, Box 7014, Radford University, Radford VA 24142. Include your name and address; your school and district name and address; e-mail address; home and work phone numbers; and the grade level and subject you teach.

AEL Project Joins the Scouts

Five interdisciplinary project guides developed during AEL's three-year National Science Foundation program have been adopted by the Black Diamond Council of the Girl Scouts of America. The Voices of Girls in Science, Math, and Technology program was designed to promote girls' interest and achievement in math, science, and technology. The guides provide hands-on activities that help young learners see the connection between abstract theories and daily experience.

For the Girl Scouts, the guides will be a great informal science tool. The Black Diamond Council, which includes the coalfield areas of West Virginia, Virginia, and Ohio, has created a new badge girls can earn for participating in the project. AEL staff are training troop leaders and council staff to use the guides.

The research and development phases ended last summer, and we'll spend the next few months putting together publications based on the Voices experience. The project guides, which can be downloaded from our Web site (www.ael.org/nsf/voices/voccurr.htm) will be published in 1999. We'll let you know when the print version is ready.

QUILT to Cover More Students

AEL's acclaimed program for professional development and school change, Questioning and Understanding to Improve Learning and Thinking (QUILT), regularly adds new pieces to its patchwork. In 1998, teachers and team members from approximately 50 schools attended QUILT training sessions, and many returned to their schools to train colleagues. (See box for information on 1999 training.)

We're especially pleased to have a new "bed" on which to display our QUILT. In February, you can get a great introduction to the program through *The Video Journal of Education*. John and Blanch Linton, the journal's creators, asked if they might videotape the June 1998 QUILT training and then visit schools that have adopted the program. Journal subscribers had been asking for information about effective questioning techniques, and the Lintons discovered QUILT during their research on the topic.

Once they arrived in Lexington and began taping, the Lintons were "impressed with the program design" and "excited about the quality and relevance of QUILT content and materials." These folks spend a lot of time working with educators, so their praise really means something. In fact, Blanch reports that she has since used QUILT techniques in her work with youth and adult groups, and has praised the program to family and friends who are teachers.

Subscribers to the *Video Journal* will receive copies of *Effective Questioning for Elementary Schools* (#804E) and *Effective Questioning for Secondary Schools* (#804S). Each title includes two programs about 35 minutes in length, along with a guidebook and an audiotape.

Nancy Balow

John and Blanch Linton of The Video Journal of Education videotaped last summer's QUILT training for their February 1999 issue.

To purchase the programs individually, call the *Video Journal* at 800-572-1153 and ask for them in Volume 8: Accelerating School Improvement. Each title costs $345, or get both for $595.

QUILT Training Grants Available

The Kentucky Department of Education will help nine Kentucky schools receive QUILT training next June. Offered on a first-come, first-served basis, the $3,000 grants will cover most of the costs for a three-person team to attend training and purchase materials.

Teams must include a minimum of two teachers and one administrator, and the school must commit to implementing the QUILT program in the 1999-2000 school year. QUILT training will be held June 20-25, 1999, at the Harley Hotel in Lexington, Kentucky.

For more information, contact Shirley Keene at AEL, 800-624-9120, e-mail keenes@ael.org, or go to our Web site at http://www.ael.org/rel/quilt/grant.htm

BEST COPY AVAILABLE

Classroom Assessment Tools: National Training Scheduled

The National Training Institute for *Improving Classroom Assessment: A Toolkit for Professional Developers (Toolkit98)* will be held February 1-3, 1999, in San Antonio, Texas. Hosted by the network of regional labs, the institute is designed for those who work with teachers—principals, professional developers, lead teachers, and college professors, among others. This hands-on training will present field-tested approaches to developing quality assessments and integrating assessment with instruction to support student learning.

Educators know assessment is where the rubber meets the road—what gets assessed gets taught.

Drawing upon the literature and its members' work, the assessment collaborative project of the regional labs assembled and published a collection of field-tested training activities in 1994. In 1998, the resource was expanded to include validated assessments (K-12) in several subjects and student work samples for use in training. *A Toolkit for Professional Developers (Toolkit98)* made its debut at a training for trainers in February 1998.

What has *Toolkit* training done for teachers?

Through the work of the Pacific Regional Educational Lab, educators have become assessment innovators. In Pohnpei, assessment "coaches" conducted workshops for almost one-third of their island's teachers. Trainers supported teachers in the development of standards-based units with embedded assessments and "celebrations of learning," which range from learning fairs to a radio program that's broadcast to everyone in the island community.

Normal Park Elementary School (Chattanooga, TN) teachers, led by AEL's Becky Burns, used *Toolkit98* to help them connect standards, curriculum, and assessment. As they developed curriculum maps relating their instruction to Tennessee frameworks, they found the activities on matching learning targets with assessments useful. With careful attention to Bloom's Taxonomy, the teachers "notched up" their assessments by designing more performance tasks. Through sorting samples of student work, they learned that having clearly written tasks, performance criteria, and rubrics was the key to successful student performance.

Central Kitsap School District in Oregon began building assessment literacy in 1991. They've since added *Toolkit* training to help teachers choose appropriate scoring criteria, develop performance tasks, and make better assessment decisions. Jan Chappuis, implementation specialist, reported that the importance of "weaving assessment into instruction" and not adding it to teachers' lists of burdens was not overlooked. She says that teachers now tell her, "When I share a scoring guide with students in a language they can understand, suddenly they are interested in making their work better. Students feel empowered; it's like having the answer key!"

These examples show that good professional developers can help educators build classroom assessments that reinforce instruction. Register for the February institute and be added to the list of *Toolkit98* trainers.

Registration is limited to 200 participants; advance fee is $320 if received by December 20, and $350 thereafter. For more information or to receive a *Toolkit* order form, contact Jane Hange at AEL at 1-800-624-9120, e-mail hangej@ael.org, or visit AEL's Web site at http://www.ael.org/rel/schlserv/toolkt99.htm.

Carla McClure

AEL meets regularly with the Kentucky, Tennessee, Virginia, and West Virginia departments of education to discuss the Comprehensive School Reform Demonstration program. The November 9 meeting, held at AEL's Charleston office, was conducted via videoconference. Shown left to right are AEL staff members Norma Winter, Rick Basom, and Billie Hauser. At right is Suzette Cook of the WV Department of Education. On screen are representatives of the other state departments.

BEST COPY AVAILABLE

RESEARCH NOTES

The U.S. Department of Education's Office of Educational Research and Information funds research through regional laboratories, national centers, and field studies. The following are summaries of recent reports. Information on finding the complete text includes a Web address (for downloading) as well as contact information for obtaining printed copies.

After-School Programs

From the Center for Research on the Education of Students Placed at Risk

Researcher Olatokunbo S. Fashola reviewed 34 after-school programs, examining them in terms of effectiveness for improving student achievement and other outcomes.

Findings indicate that few programs have convincing evidence of effectiveness because most program evaluations were limited in their methodology. For example, few studies used control groups, and most suffered from selection bias because students volunteered to enroll in them.

Based on the evaluations and a review of other studies on the effects of after-school programs, Fashola identifies a set of common components of effective programs and presents recommendations for implementing those components.

According to Fashola, after-school programs can take advantage of their unique situation to address the needs of the whole child. Therefore, an effective program should include academic, recreational, and cultural components. Implementing an effective program requires training the staff, creating a program with structure, evaluating the program, including families and children in the planning, and having an advisory board.

Fashola, Olatokunbo A. "Review of Extended-Day and After-School Programs and Their Effectiveness." Report No. 24. CRESPAR: October, 1998. Go to http://scov.csos.jhu.edu/crespar/crespar.html or phone 410-516-8800. Print version costs $8.50.

Effective Reading Teachers

From the Center on English Learning and Achievement

A team of researchers has identified nine important characteristics shared by first-grade teachers in California, New Jersey, New York, Texas, and Wisconsin. In classrooms taught by these effective teachers, most students were independently reading and writing at or above first-grade level. The characteristics include:

1. Ability to motivate high academic engagement and competence.
2. Excellent classroom management.
3. Ability to foster a positive environment.
4. Explicit teaching of skills in context.
5. An emphasis on literature.
6. Much reading and writing.
7. A match between accelerating demands and student competence.
8. Encouragement of self-regulation.
9. Strong connections across the curriculum.

Center on English Learning & Achievement, "Effective Early Literacy Instruction: Complex and Dynamic," *English Update 1*(8), CELA: spring, 1998. Go to http://cela.albany.edu or mail to CELA at University at Albany, School of Education, ED-B9, 1400 Washington Avenue, Albany NY 12222.

Content-Related Professional Development

From the Consortium for Policy Research in Education

Researchers wanted to know how teachers responded to ambitious state instructional policies. As part of the study, researchers observed classrooms and mathematics instruction in three California school districts. They saw that the reforms required extensive learning and that California's mathematics instructional policy entailed a re-education program for teachers. Researchers also found that the amount of professional development often influences practice.

Teachers who spent more time in specially developed workshops focusing on the new mathematics curriculum reported using more framework-related practices and fewer conventional practices. This result parallels research on students' learning opportunities. The combination of time and content-focus are a potent influence on learning.

In contrast, time spent in special topic workshops did not have the same payoff in practice. Even large investments of time in less content-focused workshops were not associated with more effective practices. One recommendation in the study suggests that ". . . it would be wise for policymakers and practitioners to ground teachers' professional education more solidly in deeper knowledge of the student curriculum."

Cohen, David K., and Hill, Heather C., "State Policy and Classroom Performance: Mathematics Reform in California," CPRE Policy Briefs RB-23, CPRE: January, 1998. Go to HtmlResAnchor http://www.upenn.edu/gse/cpre or phone 215-573-0700, extension 233.

NEW PUBLICATIONS OF INTEREST

School Reform Information

The Office of Educational Research and Improvement at the U.S. Department of Education recently released a video and companion book titled *Students at the Center: A National Teleconference on School Reform* and *Selected Readings.*

Teams engaged in comprehensive school reform and school district staff supporting reform efforts will find this package useful; it can also be used for professional development or to inspire school reform planning.

Teachers, principals, and research experts engaged in comprehensive school reform share ideas about what has worked for them. The 90-minute video is divided into three segments, each of which can be viewed and discussed separately: Student Learning, Professional Learning Communities Within School, and Engaging Families and Communities.

Copies are available from New Orders, Superintendent of Documents, PO Box 371954, Pittsburgh PA 15250-7954. The stock number is 065-000-01160-3, and the price is $23. More information and a form for placing orders by fax are available on the Web at http://ed.gov/pubs/video.html.

Zero Tolerance and Its Fallout

Many school districts have responded to federal laws and the possibility of legal action by adopting zero tolerance policies. In one instance, a first-grader's kiss on a classmate's cheek was interpreted as sexual harassment. In another, possession of Midol broke a school's drug rules.

Often a zero tolerance policy results in the suspension or expulsion of offending students, whose punishment can be out of proportion to their crimes. The number of such disciplinary actions has risen and may have serious consequences for the affected students. How should state and local school officials design student codes of conduct to comply with legal requirements without going overboard?

That question is addressed in a Phi Delta Kappa publication, *School Expulsions, Suspensions, and Dropouts: Understanding the Issues,* edited by Arnold Gallegos. This compilation of 27 articles helps educators look at both the problem of school dropouts and the issues that many schools face in "getting tough" with student conduct (278 pp., $25 plus $3 shipping and handling).

To order by phone, contact Phi Delta Kappa International at 800-766-1156; on-line go to http://www.pdkintl.org.

The
Link

AEL

Post Office Box 1348
Charleston, West Virginia
25325-1348
Address Correction
Requested

Telephone:
304-347-0400
800-624-9120
304-347-0487 (fax)
link@ael.org

Terry L. Eidell
Executive Director
Nancy Balow, Editor

Editorial Board
Diana Bowman
Soleil Gregg
Pat Hammer
Jane Hange
Marian Keyes
Carla McClure
Beth Sattes

OERI

The Link is available free of charge to educators in the AEL region. Readers are encouraged to reproduce its contents, giving proper credit. On request, AEL will provide a camera-ready copy on white paper.

Nonprofit
U.S. Postage Paid
AEL

```
**AUTO**************5-DIGIT 25325
VELMA MITCHELL                SP P6***
ERIC
PO BOX 1348
CHARLESTON WV 25325-1348
```

BEST COPY AVAILABLE

AEL is a private, nonprofit corporation. AEL serves as the regional educational laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL's primary source of funding is the Office of Educational Research and Improvement (OERI), U.S. Department of Education. This publication is produced with funds from OERI contract number RJ96006001. The contents herein do not necessarily reflect AEL or OERI policies or views.

AEL is an Equal Opportunity/Affirmative Action Employer